

20121055

Frost

Part 2

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Nathan J. Frost

Title: Director, New Technology and Energy Conservation

Summary:

Company Witness Nathan J. Frost presents the Company's proposal in the current Application. He introduces the other witnesses presenting testimony in support of the Application. He explains the Company's policy and approach towards DSM, particularly in light of the passage of the Virginia Clean Economy Act ("VCEA"). He provides an overview of the Company's request for approval of DSM Phase IX, as well as an overview of the Company's cost recovery request for the rate year period of September 1, 2021 through August 30, 2022 through Riders C1A, C2A, C3A, and proposed Rider C4A.

Mr. Frost explains how the VCEA amended which customers are required to pay for costs of, and by extension participate in, energy efficiency programs, by removing the automatic exemption under Subsection A 5 c for large commercial and industrial customers. The VCEA also now requires that at least 15% of the \$870 million of projected costs for energy efficiency programs that the Company must propose between 2020-2028 be for programs designed to benefit low-income and elderly, disabled individuals, or veterans. The VCEA also specifies total annual energy savings targets, starting in year 2022 through 2025, with savings targets to be set by the Commission thereafter.

Mr. Frost discusses the Company's participation in the independent moderator-led stakeholder group, which the VCEA extended the scope of the group to include feedback and input on, for example, compliance with total annual energy savings targets and effect on integrated resource plans. He next introduces the 11 proposed Phase IX Programs and associated cost caps. In particular, he testifies regarding the proposed HB 2789 (Solar Component) Program, which was developed in coordination with stakeholders pursuant to legislation.

Mr. Frost testifies how the Company proposes to expand the eligibility requirements for specific Phase VII and VIII Programs according to the changes established in the VCEA. He further notes the Company's request for a two-year extension of the Phase II Non-residential Distributed Generation Program.

Finally, Mr. Frost addresses the Company's compliance with prior DSM orders and directives and introduces the other witnesses presenting direct testimony in support of the Company's Application.

**DIRECT TESTIMONY
OF
NATHAN J. FROST
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2020-00274**

1 **Q. Please state your name, position with Virginia Electric and Power Company**
2 **(“Dominion Energy Virginia” or the “Company”), and business address.**

3 **A. My name is Nathan J. Frost and my business address is 600 East Canal Street, Richmond,**
4 **Virginia 23219. I am Director of New Technology and Energy Conservation for the**
5 **Company. A statement of my background and qualifications is included as Appendix A.**

6 **Q. Please describe your areas of responsibility with Dominion Energy Virginia.**

7 **A. I am responsible for delivering Demand-Side Management (“DSM”) programs**
8 **(individually, “DSM Program” or “Program,” collectively, “DSM Portfolio” or**
9 **“Portfolio”) for the Company. In addition, my responsibilities include developing**
10 **initiatives related to electric transportation, and expanding development of regulated**
11 **small-scale renewable energy facilities.**

12 **Q. Please describe the purpose of your testimony in this proceeding.**

13 **A. My testimony supports the Company’s petition for approval to (1) implement new DSM**
14 **programs as the Company’s “Phase IX” Programs; (2) update existing non-residential**
15 **DSM Programs as a result of recent legislative changes due to the Virginia Clean**
16 **Economy Act (“VCEA”); (3) extend the Company’s non-residential Distributed**
17 **Generation (“DG”) Program for two years; and (4) provide an annual update application**
18 **to continue rate adjustment clauses (“RACs”), designated Riders C1A, C2A, C3A, and**

add Rider C4A (collectively, the "Application").

Specifically, the purpose of my testimony is to:

- (1) Explain the Company's approach towards DSM, particularly in light of the passage of the Virginia Clean Economy Act, (the "VCEA");
- (2) Present an overview of the Company's request for approval of DSM Phase IX;
- (3) Present the Company's additional requests related to existing DSM Programs;
- (4) Provide an overview of the Company's cost recovery request for the rate year period of September 1, 2021 through August 30, 2022 ("Rate Year") through Riders C1A, C2A, C3A, and proposed Rider C4A;
- (5) Describe the Company's compliance with the Virginia State Corporation Commission's (the "Commission") order and directives in the 2019 DSM Update proceeding; and,
- (6) Introduce the other witnesses presenting testimony and summarize the requests presented by the Company with this Application.

Q. How is your testimony organized?

A. My testimony is organized as follows:

Section I – DSM Overview as Informed by the VCEA

Section II – Request for Approval of Proposed Phase IX Programs

Section III – Additional Program Requests

Section IV – Cost Recovery Request

Section V – Compliance with the Commission's 2019 DSM Final Order

Section VI – Introduction of Company Witnesses and Summary of Requests

I. DSM OVERVIEW AS INFORMED BY THE VCEA

Q. Please provide background on how the Company has conducted DSM Programs in Virginia.

A. In March 2007, a voluntary energy efficiency goal of 10% electricity savings was enacted

1 by the Virginia General Assembly. To achieve this goal, Dominion Energy Virginia
2 launched its DSM Programs, consisting of energy efficiency and peak shaving programs.
3 Dominion Energy Virginia offers voluntary energy conservation programs and useful
4 information to help residential and non-residential customers make energy efficient
5 improvements and reduce demand during peak periods.

6 Customers are required to meet specific eligibility criteria described in the terms and
7 conditions and program materials for each DSM Program. The terms and conditions,
8 Frequently Asked Questions, as well as other program materials, are developed post-
9 Commission approval to assist customers in understanding eligibility and program
10 expectations. The field implementation and administration services for the DSM
11 Programs are provided by third-party implementation vendors, which include Bidgely,
12 ClearResult, EnergyHub, Honeywell, ICF, Itron, Nexant, and PowerSecure. Each vendor
13 is under contract with Dominion Energy Virginia to implement and operate certain field-
14 service-level functions for each DSM Program. Dominion Energy Virginia's Energy
15 Conservation Department program managers have oversight responsibility to ensure the
16 third-party implementation vendors are operating in accordance with the Commission's
17 approval and contracted responsibilities.

18 In 2019, approximately 85,000 residential and non-residential customers participated in
19 the Company's DSM Programs and over 2 million LED bulbs were discounted. Overall,
20 approximately \$20.2 million was disbursed in rebate payments across the active
21 programs.

22 Energy savings associated with the Company's DSM Programs are subject to evaluation,

measurement and verification (“EM&V”) each year by the Company’s independent, third-party EM&V vendor, DNV GL. The Company continues to file annual EM&V reports detailing energy and demand reductions, as well as spending, participation, and other performance indicators, by program.

Q. Please provide an overview of the VCEA as it relates to the Company’s DSM Programs.

A. The VCEA became effective on July 1, 2020, and contains several provisions that amend the laws related to DSM programs. According to Subsection A 5 c of the VCEA, a petition for energy efficiency programs shall include a “proposed budget for the design, implementation, and operation of the energy efficiency program, including anticipated savings from and spending on each program, and the Commission shall grant a final order on such petitions within eight months of initial filing.” This Subsection also includes provisions that the Commission shall allow a margin for recovery on operating expenses for energy efficiency programs until January 1, 2022, after which a margin is dependent on what the Company has proposed, what the Commission has approved, and whether the Company has met its total annual savings targets.

The VCEA also amended which customers are required to pay for costs of, and by extension participate in, energy efficiency programs, by removing certain automatic exemption language, redefining the definition of Large General Service (“LGS”) Customer, and directing the Commission to establish an opt-out procedure for eligible customers implementing energy efficiency on their own. This change, as discussed by Company Witness Michael T. Hubbard, will allow for broader participation in the Company’s non-residential DSM Programs going-forward, and should enhance

1 opportunities for energy savings. Company Witness Elizabeth Lecky also addresses this
2 change in law as it relates to cost recovery and the Company's request for approval to
3 establish Rider C4A in this 2020 DSM Filing Update.

4 Also, as part of the VCEA, Virginia Code § 56-596.2 now requires that at least 15% of
5 \$870 million of energy efficiency program costs that the Company must propose between
6 2020-2028, be designed to benefit low-income and elderly, disabled individuals, or
7 veterans. Moreover, the VCEA specified total annual energy savings targets for the
8 Company to accomplish, starting in year 2022 through 2025, with savings targets to be
9 set by the Commission thereafter.

10 Lastly, the VCEA expanded the scope of the stakeholder group to include feedback and
11 input on (i) the development of energy efficiency programs and portfolios of programs;
12 (ii) compliance with total annual energy savings targets and effect on integrated resource
13 plans; (iii) recommended policy reforms to ensure maximum and cost-effective energy
14 efficiency; and (iv) best practices for evaluation, measurement, and verification
15 ("EM&V") services. Section 56-596.2 also provides that a utility must use a third party
16 evaluator to perform EM&V on total annual savings targets, and requires a third party
17 evaluator to provide reports on its findings concurrently to the Commission and the
18 utility.

19 **Q. Can you further comment on the Company's participation in the independent**
20 **moderator-led DSM stakeholder group process?**

21 **A.** Yes. As discussed in the direct testimony of Company Witness Michael T. Hubbard, the
22 Company has participated thus far in nine stakeholder group meetings led by the

Commission-hired independent moderator since January 1, 2019, the latest of which was a meeting that took place on November 9, 2020. During the meetings, stakeholders provided input on areas of focus for energy efficiency programs and specific conservation measures. The Company incorporated stakeholder input into its requests for proposals, and has also already made adjustments to the DSM process and planned administration of Company Programs in line with stakeholder feedback. Specifically, the Company solicited additional feedback from DSM stakeholders on the structure of the proposed HB 2789 (Solar Component) Program by hosting a dedicated meeting in October 2020.

Q. What is an example of a change the Company has instituted after hearing from stakeholders?

A. The Company worked closely with those stakeholders particularly interested in DSM programs benefiting low-income customers to fine-tune program eligibility criteria. Specifically, stakeholders noted that in differing areas of the state, the local cost of living might limit the number of participants based on the Company utilizing Virginia's "less than 60% of the state median income" standard. Therefore, after discussions with stakeholders, additional flexibility was incorporated into the definition by modifying the definition such that a potential participant's income would be compared to both Virginia's definition and to an alternate definition, suggested by stakeholders, of "80% of the local area median income."¹ The greater of the two would be the maximum income that would qualify a participant in the Program. This approach will allow for the use of differing income levels, that are more appropriate to differing regions of the state, as the

¹ This alternate definition referencing the local area median income standard is also a state standard applied by the Virginia Housing Development Authority on new housing and multifamily properties.

1 threshold for participation in order to ensure those in need are appropriately included.

2 **Q. Are there additional ongoing stakeholder efforts?**

3 A. Yes. At the August 27, 2020 DSM stakeholder meeting led by the Commission-hired
4 independent monitor, the Company introduced Cadmus, which is an expert outside
5 consultant the Company has hired to assist in developing a long-term DSM plan.
6 Cadmus also made a presentation to stakeholders at the November 9, 2020 DSM
7 stakeholder meeting.

8 The Company is excited to work with Cadmus and stakeholders on the development of
9 this long-term plan, which should serve as a road map for reaching the legislative
10 spending and savings targets that I have touched upon in my testimony.

11 **Q. With the filing of this Application, what level of spending on energy efficiency is the**
12 **Company proposing relative to the Grid Transformation and Security Act's**
13 **("GTSA") \$870 million requirement?**

14 A. As detailed by Company Witness Jarvis E. Bates, and inclusive of the programs proposed
15 in this application, the Company has proposed approximately \$476 million of spending
16 on energy efficiency programs since the passage of the GTSA, which is more than
17 halfway towards the 2028 target.

18 **Q. Has the Company evaluated performance relative to the VCEA savings targets that**
19 **will be in effect for 2022 and thereafter?**

20 A. The Company is in the process of evaluating current and future energy efficiency savings
21 estimates relative to sales. It is my understanding that evaluation of savings for a
22 particular year will occur as part of a look back—once EM&V data is available—such

1 that the first DSM filing where savings performance for 2022 is formally reviewed will
2 be in the 2023 DSM Update. The Company is committed to continuing to work with
3 stakeholders on progress towards the goals set out in the VCEA.

4 **II. REQUEST FOR APPROVAL OF PROPOSED PHASE IX PROGRAMS**

5 **Q. What are the Programs for which the Company is seeking approval through this**
6 **Application?**

7 **A.** The Company is seeking approval of the following 11 Phase IX Programs:

- 8 • Residential Income and Age Qualifying (EE)
- 9 • Residential Water Savings (EE)
- 10 • Residential Water Savings (DR)
- 11 • Residential Smart Home (EE)
- 12 • Residential Virtual Audit (EE)
- 13 • Non-residential Agricultural (EE)
- 14 • Non-residential Building Automation (EE)
- 15 • Non-residential Building Optimization (EE)
- 16 • Non-residential Engagement (EE)
- 17 • Non-residential Enhanced Prescriptive (EE)
- 18 • HB 2789 (Solar Component) Program

19 The direct testimony and schedules of Company Witness Hubbard provide additional
20 detail regarding these Programs and the measures included therewith, as well as the
21 projected participation and energy and demand savings. Additionally, the direct
22 testimony of Company Witness Edmund J. Hall provides additional detail regarding the
23 cost/benefit modeling and scores for these Programs.

1 **Q. What are the proposed cost caps for the Phase IX Programs?**

2 A. The proposed five-year cost cap for the Phase IX Programs in the aggregate is
3 approximately \$162 million. Information regarding the individual proposed cost caps for
4 each Program, and the associated details, are provided by Company Witness Jarvis E.
5 Bates. Consistent with previous DSM applications, the Company requests the ability to
6 exceed the spending cap by no more than 5%.

7 **Q. Do you have any comments regarding the proposed HB 2789 (Solar Component)**
8 **Program?**

9 A. Yes. As a result of the passage of House Bill (“HB”) 2789 during the 2019 General
10 Assembly Session, and as amended in the 2020 session, the Company met with
11 stakeholders to receive input regarding the design of a three-year program(s) providing
12 incentives to low income, elderly, disabled individuals, or veterans. Specifically, one
13 aspect of this legislation calls for a program that would offer incentives to participants of
14 the first component HB 2789 (Heating and Cooling/Health and Safety), as well as eligible
15 participants that have installed heating or cooling measures from other Company-
16 sponsored DSM Programs, for the installation of equipment to generate electricity from
17 sunlight.

18 The Company met with stakeholders regarding the solar component of HB 2789 multiple
19 times during 2019 and, as stated above, the Company met again with stakeholders in
20 October 2020, in a meeting arranged specifically to discuss this Program. The
21 independent moderator-led stakeholder group also addressed this legislation. The groups
22 discussed program goals and design.

1 Q. How was stakeholder input utilized in the development and filing of the Phase IX
2 Programs presented in this filing?

3 A. The Company issued a request for proposals incorporating stakeholder input, and the
4 Phase IX Programs presented with this Application are based on the results of that
5 process. Company Witness Hubbard's direct testimony and schedules provide additional
6 Program details.

7 III. ADDITIONAL PROGRAM REQUESTS

8 Q. What are the additional program requests that the Company is making in this
9 Application related to existing DSM Programs?

10 A. The Company has two requests related to existing DSM Programs. First, the Company is
11 requesting a short-term extension of its DSM Phase II Non-residential Distributed
12 Generation ("DG") Program for an additional two years. The Company seeks
13 Commission approval for this extension because the DG Program continues to be an
14 important resource for the Company during periods of peak demand. Moreover, it is
15 important to note that the Company is not seeking additional funds beyond the existing
16 cost cap for this Program, as the current budget level should be sufficient to cover
17 expenses for the requested additional two years. The Company is seeking this short-term
18 extension in order to bridge the gap between the current Program and any other future
19 programs that are similar in nature that it might consider. Company Witness Hubbard
20 addresses this request and the associated consideration in detail in his direct testimony.

21 The Company's second request is for the expansion of the eligibility requirements for the
22 Company's Phase VII and VIII non-residential DSM Programs, with the exception of the
23 DSM Phase VII Non-residential Office and Phase VIII Small Business Improvement

Enhanced Programs. The Company's Phase VII and VIII non-residential Programs were designed such that eligibility was capped at 500 kW (consistent with the statute in effect under the GTSA), with the exception of the Small Business Improvement Enhanced Program, which is capped at 100 kW and below. With the change in the VCEA discussed above whereby customers over 500 kW are no longer automatically exempt from paying for energy efficiency programs, the Company believes changing eligibility for applicable non-residential programs is also appropriate. In other words, if these larger customers are going to begin paying for Phase VII and VIII energy efficiency programs as of the beginning of the proposed Rate Year, they should also be eligible to participate in the non-residential programs available through those DSM Phases. Company Witness Hubbard also addresses this request.

IV. COST RECOVERY REQUEST

Q. Please provide an overview of the Company's cost recovery request.

A. With this Application, the Company requests recovery through Riders C1A, C2A, C3A, and proposed C4A of (i) Rate Year costs associated with its Phase II, IV, V, VI, VII, VIII, and IX Programs; and (ii) 2019 calendar year True-up of costs associated with the Company's Phase II, III, IV, V, VI, and VII Programs and EV Pilot Program through a Monthly True-Up Adjustment.

The total revenue requirement requested in this proceeding is \$78,119,830, and is detailed in Company Witness Elizabeth Lecky's pre-filed direct testimony. Company Witness Christopher C. Hewett addresses the proposed allocation methodology for the revenue requirement, which is consistent with the methodology previously approved by this Commission. And, Company Witness Emilia L. Catron presents the Riders C1A,

1 C2A, C3A, and proposed C4A and associated estimated customer bill impacts.

2 **V. COMPLIANCE WITH THE COMMISSION'S 2019 DSM FINAL ORDER**

3 **Q. Please discuss the Commission's Final Order in the 2019 DSM proceeding, Case No.**
4 **PUR-2019-00201, and how the Company has complied with all directives.**

5 A. In its 2019 DSM Final Order, the Commission directed the Company to "submit: (a)
6 annual evaluation, measurement and verification reports; and (b) as part of every DSM
7 filing, an exhibit similar to Exhibit 5 in Case No. PUE-2013-00072." Additionally, the
8 Commission directed, "[i]n every future rate adjustment clause proceeding under Code §
9 56-585.1 A 5, Dominion [Energy Virginia] shall submit evidence of the actual energy
10 savings achieved by each program for which cost recovery is sought."

11 The Company filed its most recent EM&V report on May 15, 2020, in docket PUR-2018-
12 00168. An exhibit similar to "Exhibit 5" from Case No. PUE-2013-00072 is included as
13 Company Witness Hubbard's direct testimony Schedule 4. Finally, the Company is
14 submitting evidence of the actual energy savings achieved by each Program for which
15 cost recovery is sought within Company Witness Hubbard's direct testimony Schedule 1.
16 Please note, the energy savings evidence presented in Schedule 1 is based on the final
17 EM&V data as of December 31, 2019; as such, it is only included for those Programs that
18 were active during that time.

19 **VI. INTRODUCTION OF COMPANY WITNESSES AND SUMMARY OF REQUESTS**

20 **Q. What other Company witnesses are filing direct testimony in this proceeding?**

21 A. The Company is pre-filing direct testimony of the following seven witnesses in addition
22 to my own:

- Company Witness Michael T. Hubbard will present testimony regarding the status of the Company's approved and active DSM Programs and address the Company's efforts to bring forward cost-effective program designs in our current case. Company Witness Hubbard will also provide an update on the Company's quality assurance and quality controls process for its DSM Programs.
- Company Witness Edmund J. Hall will discuss the Company's processes for screening and selecting DSM Programs, including screening criteria for evaluation of DSM Programs. Company Witness Hall will also present the results of the cost/benefit test results for the Phase IX Programs and provide updated cost/benefit test results for the ongoing DSM Programs.
- Company Witness Jarvis E. Bates will provide cost projections for the Rate Year and proposed cost caps for the Phase IX Programs. Mr. Bates will also present the actual costs of the approved DSM Programs.
- Company Witness Elizabeth Lecky will present the revenue requirement for Riders C1A, C2A, and C3A over the Rate Year, including the True-up for calendar year 2019, and the revenue requirement for proposed Rider C4A.
- Company Witness Christopher C. Hewett will explain the Company's allocation and assignment of costs for its DSM Programs to the Virginia Jurisdiction and customer classes.
- Company Witness Emilia L. Catron will present the calculation of the three continued Riders and proposed Rider C4A.
- Company Witness Dan Feng of DNV-GL will sponsor the EM&V Plans for the proposed Phase IX Programs.

Q. Please summarize the requests the Company is making with this 2020 DSM Application.

A. The Company's Application in this proceeding requests the following approvals from the Commission:

Programmatic

- Authorization to offer 11 new Phase IX DSM Programs to eligible customers
- Authorization to operate the Phase IX DSM Programs for five years, from January 1, 2022 – December 31, 2026 (three years for the proposed HB 2789 (Solar Component) Program)

- Approval of the aggregate Phase IX DSM Program cost cap of \$162 million, the individual cost caps presented by Company Witness Bates, and the ability to the ability to exceed the cost cap by no more than 5%
- Approval to extend the Company's DSM Phase II Non-residential DG Program for an additional two years, without any increase in the previously-approved cost cap
- Approval to expand the eligibility requirements for specific DSM Phase VII and Phase VIII Programs according to the changes enacted within the VCEA

Accounting

- Approval of the Rate Year beginning September 1, 2021 and ending August 31, 2022
- Approval of a revenue requirement of \$78,119,830 to be recovered through revised Riders C1A, C2A, C3A, and C4A over the Rate Year
- Approval of the same allocation methodology as previously-approved in 2019 DSM proceeding
- Approve the Company's request to continue Riders C1A, C2A, C3A, and establish the proposed Rider C4A to be effective for billing purposes on the latter of September 1, 2021, or the first day of the month which is at least fifteen (15) days following the date of any Commission order approving Riders C1A, C2A, C3A, and C4A

EM&V

- Approval of Phase IX Program EM&V Plans

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
NATHAN J. FROST**

Nathan J. Frost graduated from James Madison University with a Bachelor of Business Administration in Finance. He joined Dominion Energy in 2005 and has held numerous positions in the areas of Enterprise Risk Management, Producer Services, Investor Relations, and Power Delivery. Mr. Frost assumed his current position as Director – New Technology and Energy Conservation for Dominion Energy Virginia in January 2019. In this position, Mr. Frost is responsible for delivering demand side management solutions, developing initiatives related to electric transportation, and expanding development of regulated small-scale renewable energy facilities.

Mr. Frost has previously testified before the State Corporation Commission of Virginia.

20121005

Hubbard

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Michael T. Hubbard

Title: Manager – Energy Conservation

Summary:

Company Witness Michael T. Hubbard first provides an update on the Company's approved DSM Programs. Mr. Hubbard next provides an overview of the development and design of the Company's proposed Phase IX Programs, including the request for proposals ("RFP") process. He describes in detail the 11 Phase IX Programs being proposed in the Company's Application:

- Residential Income and Age Qualifying (EE)
- Residential Water Savings (EE)
- Residential Water Savings (DR)
- Residential Smart Home (EE)
- Residential Virtual Audit (EE)
- Non-residential Agricultural (EE)
- Non-residential Building Automation (EE)
- Non-residential Building Optimization (EE)
- Non-residential Engagement (EE)
- Non-residential Enhanced Prescriptive (EE)
- HB 2789 (Solar Component) Program

Mr. Hubbard explains that the Company plans to implement the proposed Phase IX Programs through fully outsourced implementation vendors, similar to the approach successfully taken for previously-approved DSM Programs. The implementation vendor(s), in conjunction with the Company, often utilizes a contractor network to assist in delivering the program in the field, similar to previous phases.

As with the previously approved DSM Programs, Mr. Hubbard further explains that the Company will require detailed reporting from its implementation vendors to help ensure that each Program meets its desired performance levels and participation targets. The Company will conduct evaluation, measurement and verification ("EM&V") on each Program, and will use internal Program Managers to monitor vendor performance, Program success, and customer satisfaction. In addition, the Program Managers will ensure vendor compliance with contractual requirements and performance targets through regular reporting, and the proper coordination with the Company's systems and processes.

Lastly, Mr. Hubbard discusses the quality assurance process and gives an update on the Company's controls surrounding the rebate approval process and any changes therein.

**DIRECT TESTIMONY
OF
MICHAEL T. HUBBARD
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2020-00274**

1 **Q. Please state your name, position with Virginia Electric and Power Company**
2 **(“Dominion Energy Virginia” or the “Company”), and business address.**

3 A. My name is Michael T. Hubbard, and I am Manager – Energy Conservation for
4 Dominion Energy Virginia. My business address is 600 East Canal Street, Richmond,
5 Virginia 23219. A statement of my background and qualifications is attached as
6 Appendix A.

7 **Q. Please describe your areas of responsibility with the Company.**

8 A. I am responsible for implementing the Company’s Demand-Side Management (“DSM”)
9 programs (individually “DSM Program(s)” or “Program(s),” collectively “DSM
10 Portfolio” or “Portfolio”), which includes oversight of Program planning and the requests
11 for proposals (“RFPs”) through which the Company selects vendors to help administer
12 the Programs, and oversight of the vendors during Program implementation.

13 **Q. What is the purpose of your testimony in this proceeding?**

14 A. My testimony supports the Company’s petition for approval to (1) implement new DSM
15 programs as the Company’s “Phase IX” Programs, and (2) update existing non-residential
16 DSM Programs as a result of recent legislative changes due to the Virginia Clean
17 Economy Act (“VCEA”); (3) extend the Company’s non-residential Distributed
18 Generation (“DG”) Program for two years; and (4) provide an annual update application

1 to continue rate adjustment clauses ("RACs"), designated Riders C1A, C2A, C3A, and
2 add Rider C4A (collectively, the "Application").

3 Specifically, I will provide an update on the status of the Company's approved DSM
4 Programs, and address the proposed updates to those programs. My testimony will also
5 provide an overview of the development and design of the proposed Phase IX Programs,
6 including the RFP process. I will discuss the quality assurance process and give an
7 update on the Company's controls surrounding the rebate approval process and any
8 changes therein. Lastly, I will address certain provisions of the State Corporation
9 Commission's (the "Commission") Rules Governing Utility Promotional Allowances
10 ("Promotional Allowances Rules") (20 VAC 5-303-10, *et seq.*).

11 **Q. Are you sponsoring an exhibit in this proceeding?**

12 A. Yes, Company Exhibit No. __, MTH, consisting of Schedules 1-6, was prepared under
13 my supervision, and is accurate and complete to the best of my knowledge and belief.
14 Schedule 1 includes fact sheets for each of the Company's existing and active DSM
15 programs, excluding Phase VIII, which was recently approved by the Commission in July
16 2020. Schedule 2 provides a description of the proposed Phase IX Programs. Schedule 3
17 includes a matrix that specifies the simultaneous eligibility constraints for the Company's
18 approved DSM Programs. Schedule 4 was prepared at the direction of Ordering
19 Paragraph (5) of the Commission's Final Order in the Company's 2019 DSM Proceeding,
20 Case No. PUR-2019-00201. It summarizes the DSM Programs proposed by the
21 Company in Phases I through VIII with information regarding each Program's approval
22 status, costs requested, costs approved, actual costs and participation through June 30,
23 2020, and start and end dates, among other content. Schedule 5 provides an overview of

1 the Company's rebate review and approval process. Finally, Schedule 6 illustrates the
2 pre-approval operational procedure utilized by the Company's implementation vendor for
3 the non-residential Programs.

4 I am also sponsoring Filing Schedule 46A, Statement 1 and Statements 2-3 (Public and
5 Extraordinarily Sensitive versions filed under seal and subject to the Company's Motion
6 for Protective Order and Additional Protective Treatment filed coincident with the
7 Application), which has been prepared under my direction and supervision, and is
8 accurate and complete to the best of my knowledge and belief. Filing Schedule 46A,
9 Statement 1, provides the scope of work that serves as the basis of the RFP for the
10 proposed Phase IX DSM Programs; Extraordinarily Sensitive Statement 2 contains
11 additional program detail for the Phase IX Programs; and Extraordinarily Sensitive
12 Statement 3 contains the vendor contracts and change orders executed since the
13 Company's last DSM filing.

14 **Q. How is your testimony organized?**

15 **A.** My testimony is organized as follows:

- 16 I. Status of Existing and Active Programs
- 17 II. Proposed Update to existing non-residential DSM Programs based on
18 VCEA
- 19 III. Launch Efforts of Phase VIII Programs
- 20 IV. Proposed Phase IX Programs
- 21 V. Quality Assurance and Controls and Compliance with Commission Orders
22 and Rules

I. STATUS OF EXISTING AND ACTIVE PROGRAMS

Q. Mr. Hubbard, please provide an update on the Company's existing and active DSM Programs.

A. The Company's existing and active DSM Programs, other than Phase VIII, which is discussed in Section III, are: Residential AC Cycling, Residential Income and Age Qualifying Home Improvement, Residential Appliance Recycling, Residential Efficient Products Marketplace, Residential Home Energy Assessment, Non-residential Distributed Generation, Small Business Improvement, Non-residential Prescriptive, Non-residential Lighting Systems and Controls, Non-residential Heating and Cooling Efficiency, Non-residential Window Film, Non-residential Small Manufacturing and the Non-residential Office. Fact sheets for each of these Programs, with the exception of the recently approved DSM Phase VIII Programs, are attached collectively as my Schedule 1. Each fact sheet contains detailed information, including a Program description, eligibility requirements, approved measures, budget, participation, and energy savings. Program participation, energy savings, demand savings, and Program spend values as of December 31, 2019, are sponsored by Company Witness Dan Feng, of DNV GL, the Company's EM&V expert witness.

Q. Do you have any comments on the Company's DSM Phase II Non-residential Distributed Generation (DG) Program?

A. Yes. The Company's Phase II Non-residential DG Program was extended for a five-year period in Case No. PUE-2016-00111. In this proceeding, the Company is seeking an additional two-year extension since the Program continues to be an important resource for the Company during periods of peak demand. It is important to note that the

1 Company is not seeking additional funds beyond the existing cost cap for this Program,
2 as the current budget level should be sufficient to cover expenses for the requested
3 additional two years. The Company is seeking this short-term extension in order to
4 bridge a gap between the current Program and any other future programs that are similar
5 in nature.

6 **II. PROPOSED UPDATE TO EXISTING NON-RESIDENTIAL DSM PROGRAMS**
7 **BASED ON VCEA**

8 **Q. What changes does the Company believe are appropriate to make to existing non-**
9 **residential DSM Programs as a result of the VCEA?**

10 A. The VCEA, which became effective July 1, 2020, removed prior language under Virginia
11 Code § 56-585.1 A 5 that provided an automatic exemption for large commercial and
12 industrial customers—defined as any customer over 500 kilowatts (“kW”) from paying
13 for new utility-sponsored energy efficiency programs. Instead, the VCEA redefines a
14 “Large General Service Customer” (“LGS Customer”) as a customer that has a verifiable
15 history of having used more than one megawatt (“MW”) of demand from a single site
16 and directs the Commission to establish a qualification and opt-out process for eligible
17 LGS Customers that implement energy efficiency measures at their own expense. The
18 Commission initiated a rulemaking proceeding pursuant to this change in law that is
19 currently pending in Case No. PUR-2020-00172.

20 Under the prior version of the law, LGS Customers did not pay Rider C3A, which
21 recovered costs for DSM Programs approved since July 1, 2018. Because of this, the
22 Company also did not permit LGS Customers to participate in Rider C3A programs. In
23 other words, a commercial customer that did not pay for a particular DSM program,

1 could not benefit from that program through participation.

2 With the VCEA changing the law from an automatic exemption to an opt-out process and
3 the demand threshold changing from 500 kW to 1 MW, the Company believes changes in
4 program cost recovery and eligibility are also appropriate at this time. As discussed in
5 the pre-filed direct testimony of Company Witness Elizabeth Lecky, the Company
6 intends to begin charging all LGS Customers that have not opted out of energy efficiency
7 charges for the previously approved programs that are subject to Rider C3A as of the
8 beginning of the Rate Year beginning September 1, 2021.¹ At that time, it will also be
9 appropriate to allow LGS Customers to participate in the Company's non-residential
10 program offerings if they so desire, with the exception of the DSM Phase VIII Small
11 Business Improvement Enhanced Program and the DSM Phase VII Non-residential
12 Office Programs because these programs are targeted for smaller customers under the 500
13 kW threshold. In particular, the Small Business Improvement Enhanced Program is
14 targeted to non-residential customers with a demand threshold of 100 kW or less of
15 usage.

16 Accordingly and consistent with the newly enacted law, the Company proposes to expand
17 eligibility requirements for the following DSM Phase VII and Phase VIII Programs,
18 respectively: Non-residential Lighting Systems and Controls, Non-residential Heating
19 and Cooling Efficiency, Non-residential Window Film and Non-residential Small
20 Manufacturing Programs. Furthermore, the Company is also seeking to expand

¹ The opt-out process has not yet been established by the Commission. As noted, the proceeding is currently pending in Case No. PUR-2020-00172. The outcome of that proceeding may determine whether any customers will be able to opt out for the start of the proposed Rate Year.

1 eligibility for the following Phase VIII Programs, removing the 500 kW exemption
2 threshold: Non-residential Multi-family, Non-residential Midstream Energy Efficient
3 Products and Non-residential New Construction Programs. The Company is not seeking
4 any additional funds within the approved cost caps for these Programs, but rather
5 expanding their eligibility requirements to reflect the recently enacted law that expanded
6 eligibility to customers above 500 kW who have not opted out to pay for and thereby
7 participate in the Company's DSM non-residential program portfolio.

8 III. LAUNCH EFFORTS OF PHASE VIII PROGRAMS

9 **Q. Please provide the status on the launch efforts of the recently approved Phase VIII,**
10 **and Phase VII Thermostat and Customer Engagement Programs.**

11 A. Since the Final Order in Case No. PUR-2019-00201 was issued on July 30, 2020, the
12 Company has worked diligently with the various program implementation vendors to
13 finalize contracts while beginning program launch activities. The Company began its
14 program launch activities promptly after the final order, including contractor background
15 checks; cyber risk assessment and development of mitigation plans; development of data
16 security specifications, data pipelines, transmission, and access protocols; program terms
17 and conditions; program web development and deployment; call center scripts and
18 staffing; interactive voice response system programming; design and production of
19 program specific marketing materials; development of program data collection
20 specifications for evaluation, measurement and verification ("EM&V"); secure data
21 exchange rollout and testing; and development of contractor network and/or
22 subcontractors.

IV. PROPOSED PHASE IX PROGRAMS

Q. Please summarize the Company's request in this proceeding with respect to new DSM Programs.

A. The Company is seeking approval of Phase IX of its DSM Portfolio in this proceeding. Phase IX is comprised of the following 11 DSM Programs:

- Residential Income and Age Qualifying (EE)
- Residential Water Savings (EE)
- Residential Water Savings (DR)
- Residential Smart Home (EE)
- Residential Virtual Audit (EE)
- Non-residential Agricultural (EE)
- Non-residential Building Automation (EE)
- Non-residential Building Optimization (EE)
- Non-residential Engagement (EE)
- Non-residential Enhanced Prescriptive (EE)
- HB 2789 (Solar Component) Program

As detailed in the application and consistent with the Commission's approval of the Phase VIII Programs, the Company requests approval to operate the proposed Phase IX Programs for a full five years – from January 1, 2022 through December 31, 2026, as well as approval to spend for launch and wind-down activities in a reasonable period before and after the operational timeframe.

1 The Company believes that an extended, calendar-year operations period aligns better
2 with the market, avoids disruptive starts and stops, and is widely supported by
3 stakeholders as discussed in the moderator led process. A complete five-year program
4 period allows for a program to properly launch and gain acceptance without the potential
5 risk of having to wind it down as it begins to gain full customer acceptance and expected
6 deployment levels. It also avoids having programs launch in the late fall, only to be
7 slowed by the immediate holiday season before picking back up in the new year.
8 Stakeholders expressed a preference for programs to operate on a calendar year basis
9 rather than starting in the fall to avoid losing time to the holidays, as well as to provide
10 predictability to customer on regular launch dates into the future with reduced gaps
11 between extended programs.

12 **Q. Please elaborate on each of the proposed Phase IX Programs.**

13 A. The Company is proposing new programs that will, if approved, be incorporated into the
14 Company's overall portfolio of programs. The proposed Programs include multiple
15 measures as suggested to the Company through various channels, including DSM
16 stakeholders, DSM Market Potential Studies, the Stakeholder Review Process, and RFPs.

17 Below are brief descriptions of the Phase IX Programs. Detailed Program sheets
18 including descriptions, eligibility, measure lists, projected participation and energy
19 savings, and cost caps are provided in my Schedule 2, with additional design details also
20 available in Extraordinarily Sensitive Filing Schedule 46A, Statement 2. Cost/benefit
21 results for the Programs are discussed and provided by Company Witness Edmund J.
22 Hall's direct testimony and schedules.

**Residential Income and Age Qualifying
(Energy Efficiency)**

This Program is proposed as a replacement to the existing DSM Phase IV Residential Income and Age Qualifying Home Improvement Program.

The updated Program design for the Phase IX Program would provide income and age qualifying residential customers with in-home energy assessments and installation of select energy-saving measures. Energy assessments and installations will be conducted by qualified, local weatherization service providers (“WSP”) who currently offer weatherization related services through the Virginia Department of Housing and Community Development and have been approved by the Income and Age Qualifying Program to complete assessments and install the selected energy-saving products. This Program would also complement the recently approved weatherization program focused on heating and cooling/health and safety improvements.

**Residential Water Savings Program
(Energy Efficiency/Demand Response)**

This Program would provide incentives to residential customers for the installation of smart communicating water heating and pool pump technologies, leveraging the energy efficiency and demand response savings opportunities of both technologies. All residential customers who purchase a qualifying heat pump water heater or a variable speed pool pump would receive an incentive (*i.e.*, the energy efficiency component of the Program). Those customers would then be offered the opportunity to enroll in the demand response (“DR”) component of the Program. Customers who already have a qualifying product noted above, could choose to participate in the peak reduction component of the Program, which can be called year-round. Customers would be

1 allowed to opt out of a certain number of events.

2 **Residential Smart Home Program**
3 **(Energy Efficiency)**

4 The objective of this Program is to offer the Company's residential customers a full suite
5 of smart home products that provide seamless integration into their homes. The Program
6 would provide incentives to residential customers who purchase smart control
7 technologies. Customers will be offered two types of smart home kits to choose from—
8 with and without a smart thermostat.

9 **Residential Virtual Audit Program**
10 **(Energy Efficiency)**

11 This program would offer the Company's residential customers the opportunity to
12 participate in an online, self-directed home energy assessment. The energy assessment
13 would be completed entirely by the customer, with no trade ally entering the home.
14 Customers who complete the self-assessment would then be given the opportunity to
15 receive a kit of low-cost measures at no cost to them. The measures would be based on
16 questions in the assessment determining which measures would address specific energy
17 savings opportunities in each home.

18 **Non-residential Agricultural**
19 **(Energy Efficiency)**

20 This Program would provide financial incentives for the installation of specific high-
21 efficiency equipment for qualifying agribusiness operations. The financial incentives and
22 technical assistance would be offered through prescriptive rebates and custom rebates.

Non-residential Building Automation Program
(Energy Efficiency)

This Program would capture energy savings associated with supporting the installation of new building automation systems in facilities that do not have centralized controls or that have an antiquated system that requires full replacement. The proposed program design is flexible in that the incentives can be paid to end customers or controls contractors, meeting the needs of individual project situations.

Non-residential Building Optimization Program
(Energy Efficiency)

This Program would seek to capture energy savings through control system audits and tune-up measures in facilities with building energy management systems. This Program is similar to the recently approved DSM Phase VII Office Program, but designed for larger customers, while maintaining a consistent process to aid market uptake and understanding.

Non-residential Engagement Program
(Energy Efficiency)

This Program would engage commercial buildings in energy management best practices that increase awareness of operational and behavioral energy savings opportunities. The Program would educate and train participating business facility management staff on ways to achieve energy savings through optimization of building energy performance and integrating ongoing commissioning best practices into their operations.

**Non-residential Enhanced Prescriptive Program
(Energy Efficiency)**

This Program would be a replacement to the existing DSM Phase VI Non-residential Prescriptive Program. The Program would provide qualifying non-residential customers with financial incentives for the installation of refrigeration, commercial kitchen equipment, HVAC improvements and maintenance, and installation of other program specific, energy efficiency measures.

HB 2789 (Solar Component) Program

This Program, consistent with the directives contained in Virginia House Bill 2789 (2019 Session), and as amended in the 2020 session, would offer incentives to participants of the first component HB 2789 (Heating and Cooling/Health and Safety), as well as eligible participants that have installed heating or cooling measures from other prior or future Company-sponsored DSM Programs, for the installation of equipment to generate electricity from sunlight. The Program's eligibility is limited based on income, age, veteran, and disability status.

Q. Is the proposed Phase IX Non-residential Enhanced Prescriptive Program the same program as the Phase VI Non-residential Prescriptive Program?

A. No. The proposed Phase IX Program is an updated and enhanced version of the existing Phase VI Program. The proposed Prescriptive Program is intended to provide potential customers a seamless continuation from the end of the existing DSM Phase VI Program into the new Phase IX Program, maximizing the momentum of the existing Program while ensuring no lapse in availability to the Company's eligible customers. But importantly, it adds key measures and services to further enhance the program offerings

1 for qualifying customers. The measure mix from the DSM VI Program was revisited and
2 updated to be consistent with current technical reference manuals ("TRM"), as well as to
3 incorporate feedback from customers, trade allies, and equipment vendors. Additionally,
4 several measures were removed as those measures have become standard practice or the
5 market is not expected to produce additional volume.

6 New measures include food seal wrappers, ozone laundry systems, electronically
7 commutated motors for heating and cooling, heat pump pool cover, parking deck
8 ventilation, commercial dryers, guest room energy management systems, and pool pump
9 variable speed drives.

10 Measures removed include refrigeration night covers, evaporator fans, suction pipe
11 insulation, floating head pressure control, advanced power strip and vending machine
12 misers.

13 The Company also took steps to ensure the projected energy savings for the proposed
14 Phase IX Program closely align with the measured and verified savings achieved from
15 installed measures in the Phase VI Program.

16 **Q. Will you describe the eligibility requirements for the proposed Phase IX DSM**
17 **Programs?**

18 **A.** Details regarding eligibility for each of the proposed Phase IX DSM Programs are
19 included within the Schedule 2 program sheets. The proposed Programs are designed for
20 specific segments of residential and non-residential customers. Customers may be
21 enrolled if they meet the eligibility requirements and agree to the applicable terms and
22 conditions for that Program. Schedule 3 to my testimony includes a matrix that specifies

1 the simultaneous eligibility constraints for the Company's approved and proposed
2 Programs.

3 **Q. Please describe the RFP process that led to the development of the Phase IX**
4 **Programs.**

5 A. The proposed DSM Phase IX Program concepts were developed through the energy
6 efficiency stakeholder process, as directed by Chapter 397 of the 2019 Virginia Acts of
7 Assembly, as required by § 56-596.2 of the Code of Virginia. The Company has
8 participated thus far in nine stakeholder group meetings since early 2019, all led by the
9 Commission-appointed independent moderator. Additionally, the Company has
10 continued to meet with stakeholders outside the large stakeholder group meetings. The
11 Company has participated in several meetings with interested stakeholders to discuss the
12 wind down of the Phase IV Residential Income and Age Qualifying Home Improvement
13 Program, while also providing additional information on the proposed Phase IX
14 Residential Income and Age Qualifying Program. During the meetings, stakeholders
15 provided input on areas of focus for energy efficiency programs and specific conservation
16 measures. The Company then incorporated the stakeholders' ideas and recommendations
17 into an RFP to solicit proposals for program designs based on those concepts developed
18 at the stakeholder meetings. Specifically, this resulted in an RFP issued in May 2020. In
19 addition, the Company solicited additional feedback from DSM stakeholders on the
20 structure of the HB 2789 (Solar Component) Program described above by hosting a
21 dedicated meeting in October 2020.

22 A copy of the RFP is included in Filing Schedule 46A, Statement 1. Proposed program
23 designs requested through the RFP process must include, but are not limited to:

development of specific program measures, incentives, parameters and assumptions, projected participation, projected costs, load profiles, projected energy and demand savings, and eligibility requirements. The RFP process, as well as the subsequent evaluation of proposals received, resulted in the Program proposals in this filing.

Q. How were the results from the RFP used for purposes of this application?

A. The Company used the RFP responses to define measures that would be included in Programs and to develop the estimated penetrations, costs, and energy and load reductions associated with the proposed Programs for purposes of the cost/benefit evaluations.

Q. How does the Company propose to implement the Phase IX Programs?

A. The Company plans to implement the proposed Phase IX Programs through fully outsourced implementation vendors, similar to the approach successfully used in previously-approved DSM Programs. The implementation vendor(s), in conjunction with the Company, often utilizes a contractor network to assist in delivering the program in the field, similar to previous phases. Final implementation details will be negotiated with the selected implementation contractor(s) upon Program approval.

Q. When does the Company anticipate the Phase IX Programs will be available to customers?

A. With Commission approval, the Company anticipates the Phase IX Programs will be available to customers in January 2022, with launch activities beginning shortly after the Commission's final order in this proceeding.

1 **Q. How will the Company oversee the vendors selected to implement and manage these**
2 **proposed Programs?**

3 A. As with the previously approved DSM Programs, the Company will require detailed
4 reporting from its implementation vendors to help ensure that each Program meets its
5 desired performance levels and participation targets. The Company will conduct EM&V
6 on each Program and will include those results in its annual EM&V filing with the
7 Commission, as discussed further in the pre-filed direct testimony of Company Witness
8 Feng, of DNV-GL.

9 As with the currently approved Programs, the Company will use internal Program
10 Managers to monitor vendor performance, Program success, and customer satisfaction.
11 In addition, the Program Managers will ensure vendor compliance with contractual
12 requirements and performance targets through regular reporting, and the proper
13 coordination with the Company's systems and processes. Such monitoring and oversight
14 should go unnoticed by the customer and will help to ensure successful and efficient
15 interaction between the Company and its vendors.

16 **V. QUALITY ASSURANCE AND CONTROLS AND COMPLIANCE WITH**
17 **COMMISSION ORDERS AND RULES**

18 **Q. Please describe the difference between the Company's quality control and quality**
19 **assurance processes.**

20 A. The Company has a quality control process that utilizes internal automated queries and
21 staff to track and flag measures installed in its programs. Rebate application information
22 and installation work must be completed before rebates are funded and approved during
23 the weekly review process. Each measure is tracked for accuracy in the Company's

1 Business Intelligence (“BI”) system (the official system of record that all rebates are
2 approved from) and checked again against the Program’s applicable eligibility criteria.
3 The final information is also submitted to DNV-GL, the Company’s EM&V vendor, to
4 calculate energy savings and check data quality on a monthly basis. The BI system
5 validates measures and prevents acceptance of measures previously installed under the
6 same customer account. Company personnel work closely with the implementation
7 vendor to help ensure that rebates and supporting application data are accurate. Any
8 errors that are identified in the Company’s weekly exception reports are captured and
9 corrected by the appropriate program manager and analyst prior to being processed. The
10 rebate back-up documentation is scanned and stored in the Company’s implementation
11 vendor’s systems, as with the quality assurance field work when performed. This
12 supporting documentation can be matched to completed work once a completed rebate
13 application is submitted and approved for payment.

14 In addition to the quality control processes discussed above, the Company’s field and
15 quality assurance process is used to check and verify the quality of work on a percentage
16 of each vendor’s projects. It should also be noted that the program implementation
17 vendor often meets with customers and participating contractors to address work to be
18 performed. All these ongoing quality controls and quality assurance observations help to
19 ensure that legitimate work is rebated and not duplicated.

20 **Q. Please elaborate on the Company’s quality assurance process for DSM Program**
21 **measure installations.**

22 A. As outlined in my Schedules 5 and 6, the Company has detailed guidelines and processes
23 to confirm that approved Programs are being implemented as planned and tracked closely

as to participation levels and spending. Data quality control and field inspections are done by our implementation vendors, EM&V vendors, and the Company's Energy Conservation department staff.

Q. Please provide an update on the controls and procedures surrounding the rebate approval process.

A. Since the 2016 DSM Final Order was issued in June 2017, the Company and its implementation vendors have worked together to make improvements, where applicable, to existing controls and procedures surrounding the rebate approval process. As an example, one of the Company's implementation vendors has improved its operating procedures for pre-approval of large projects. Employees of the implementation vendor have been trained to incorporate a six-step procedure as part of their process. The vendor has continued to focus on adhering to the necessary steps in the current process. See my Schedule 6 for a detailed overview of the process.

Q. Does the Company have plans for any other future improvements or changes to its DSM Program and measure controls?

A. In addition to continuing enhancements to the pre-approval processes, one of the Company's program implementation vendors has launched an electronic rebate tracking system, which will continue to safeguard and securely transfer data between the implementation vendor and the Company while processing rebate applications more swiftly. The program implementation vendor has successfully integrated its new electronic rebate tracking system into numerous programs in DSM Phases V, VI, VII, and VIII, enabling opportunities to streamline field data collection and quality control mechanisms while safeguarding and securely transferring data between the

1 implementation vendor and the Company. The tracking system and reporting tools
2 improved the Company and its program implementation vendor's ability to analyze data,
3 monitor trends, and make more informed business decisions, thereby enhancing overall
4 program performance.

5 **Q. Is the Company providing information in this filing that outlines the fixed versus**
6 **variable costs associated with each implementation vendor contract?**

7 A. As with the Company's previous annual DSM filing updates, the Company will continue
8 to provide new or changed vendor information that identifies fixed and variable costs
9 within each implementation vendor contract, as outlined in my Schedule 46A. Note that
10 incentive costs should be treated as variable costs. The program sheets for the proposed
11 Phase IX Programs also include cost information presented on an incentive versus non-
12 incentive basis, as requested by stakeholders.

13 **Q. Do the proposed Programs promote appliances and equipment subject to the federal**
14 **standards contained in the National Appliance Energy Conservation Act**
15 **("NAECA") in accordance with Rule 40(1)(d) of the Promotional Allowance Rules**
16 **(20 VAC 5-303-40(1)(d))?**

17 No. The NAECA standards establish minimum energy efficiency requirements for
18 certain types of residential appliances sold in the U.S., but the proposed Programs do not
19 promote appliances or equipment that fall within the scope of NAECA. Therefore, this
20 provision of the Promotional Allowance Rules is not implicated by the proposed Phase
21 IX Programs.

1 **Q. Has the Company considered whether the proposed DSM Phase IX Programs will**
2 **have any significant effect on the sales levels of an alternative energy supplier in**
3 **accordance with Rule 40(1)(e) of the Promotional Allowances Rules (20 VAC 5-303-**
4 **40(1)(e))?**

5 A. As required by Rule 40(1)(e), the Company has considered this issue and does not
6 believe the proposed DSM Phase IX Programs will have a significant effect on the sales
7 levels of alternative energy suppliers. The proposed Programs are not designed or
8 expected to influence the use of one energy source over another but, rather, are designed
9 to specifically target electric applications.

10 **Q. How will the proposed DSM Programs conform to Rule 40(1)(c) of the Promotional**
11 **Allowances Rules (20 VAC 5-303-40(1)(c)), which requires that the DSM Programs**
12 **be designed to minimize the potential for placing private businesses at an undue**
13 **competitive disadvantage?**

14 A. The RFP issued for the potential Phase IX Programs requested information regarding
15 how each contractor plans to use other small and/or diverse businesses or subcontractors.
16 When evaluating the bids, the Company favorably considered the bidders' affirmative
17 responses and responsive examples to these questions. This requirement is further
18 embodied in the Company's implementation contracts. Additionally, private businesses
19 serve as the delivery mechanism for services and energy saving measures within the
20 Programs. This approach directly supports local and private businesses.

1 **Q. Has the Company defined customer classes in compliance with Rule 40(1)(b) of the**
2 **Promotional Allowances Rules (20 VAC 5-303-40(1)(b))?**

3 A. Yes, the Company has defined the residential, commercial, and industrial customer
4 classes in compliance with Rule 40(1)(b). The Company uniformly extends the DSM
5 Programs to all customers in each defined class as allowed by statute, provided they meet
6 the Program eligibility requirements.

7 **Q. How does the Company plan to make customers aware of the proposed Phase IX**
8 **Programs?**

9 A. As with the previously-approved DSM Programs, all awareness efforts will be
10 specifically tied to the Programs. As part of the RFP selection process, the successful
11 implementation vendors for the proposed Programs will work with Company's Energy
12 Conservation department staff to review demographic information, target customers, and
13 develop marketing plans. As previously mentioned, the Company anticipates the DSM
14 Phase IX Programs will be implemented through turn-key vendor(s) utilizing a
15 participating contractor network in many instances, similar to many of the previously
16 approved DSM Programs. The Company anticipates using various marketing strategies
17 to promote the Phase IX Programs, such as providing information on its website,
18 www.dominionenergy.com, its social media outlets, on bill inserts, through direct mail,
19 and through in-store promotions.

20 The Company continues to work with various other departments and use customer
21 newsletters, bill inserts, direct mail campaigns, news releases, outreach seminars, trade
22 shows, and speaking engagements to heighten customer awareness of its energy
23 conservation offerings.

1 Importantly, the Company will use its experience from its pilots and previously-approved
 2 DSM Programs to increase its effectiveness in communicating with customers about the
 3 proposed Programs.

4 Finally, various stakeholders, such as industry groups and various counties, have offered
 5 to raise awareness of the Company's DSM Programs.

6 **Q. Does this conclude your pre-filed direct testimony?**

7 **A. Yes, it does.**

**BACKGROUND AND QUALIFICATIONS
OF
MICHAEL T. HUBBARD**

Michael T. Hubbard is Manager – Energy Conservation for Dominion Energy Virginia. Since 2008, his responsibilities have included oversight of the design and implementation of new DSM programs, including vendor retention and oversight. In 2010, he served on the Governor's Operational Review Taskforce to reduce costs and improve efficiencies for state government. He also served on the board of the Richmond Region Energy Alliance, and is currently on the board of the Virginia Energy Efficiency Council, working with stakeholders on key energy efficiency issues and the promotion of cost effective DSM programs. He is a certified Six Sigma Green Belt.

Mr. Hubbard joined Dominion Energy Virginia in 1996 and has served in a number of regulatory and customer service-related leadership roles in the Delivery and Service Company organizations.

While in the position of Underground Damage Prevention Manager, he was appointed to serve on the Commission's Advisory Committee for matters concerning the enforcement of the Virginia Underground Utility Line Damage Prevention Act, and also served on the board of directors that formed a new statewide Miss Utility call center.

Mr. Hubbard has a B.S. in History from Hampden-Sydney College and M.S.L.S. (Masters in Library Sciences) from the University of Kentucky, and is a member of the Phi Beta Kappa National Honor Society.

Mr. Hubbard has previously presented testimony before the State Corporation Commission of Virginia and the North Carolina Utilities Commission.

13-210055

Existing and Active DSM Programs

(excludes recently approved programs)

Residential AC Cycling Program

Regulatory Approvals

Approved for three years:	March 24, 2010 (Case No. PUE-2009-00081)
Three-year extension approved:	April 19, 2013 (Case No. PUE-2012-00100)
Five-year extension approved:	April 19, 2016 (Case No. PUE-2015-00089)
Two-year extension approved:	July 30, 2020 (Case No. PUR-2019-00201)

Description

The Residential Air Conditioner ("AC") Cycling Program provides qualifying residential customers with an annual bill credit in exchange for allowing the Company to reduce the operating cycle of their central air conditioning and heat pumps in periods of high demand. In periods of high demand during summer months or PJM emergency days, the Company calls "events," during which the Company cycles customers' air conditioners or heat pump compressors on and off for periods of two to four hours, while the fan stays on, circulating previously cooled air.

Eligibility

This Program is available to all eligible residential account holders who are responsible for their own electric bill and are either the owner of the home or able to secure permission from the building owner to install an AC Cycling switch.

Measures

- AC Cycling switch/system demand response

Budget

Costs Approved:	\$162.1 million
Spending ¹ :	\$84.3 million

System Level² Participation and Energy Savings

Number of Participants ³ :	78,043
Net Dispatchable Peak Shaving ⁴ :	48,858 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia and North Carolina.

³ As of December 31, 2019.

⁴ EM&V computed average demand reduction.

20170512

Non-residential Distributed Generation Program

Regulatory Approvals

Approved for five years: April 30, 2012 (Case No. PUE-2011-00093)
Extended for five years: June 1, 2017 (Case No. PUE-2016-00111)

Description

The Program provides qualifying customers with an incentive to curtail load by operating backup generation upon request. The Program is implemented by a contractor who is responsible for enabling remote operation and monitoring the customer's power generators, and for dispatching load during curtailment events under the direction of the Company.

Eligibility

Non-residential customers with a minimum demand of 200 kW and existing on-site generation capacity are eligible for the Program.

Measures

- Backup generator

Budget

Costs Approved: \$19 million
Spending¹: \$7.7 million

System Level² Participation and Energy Savings

Number of Participants³: 21 sites
Dispatchable Peak Shaving⁴: 6,314 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia. Program not offered in North Carolina.

³ As of December 31, 2019.

⁴ Includes Realization Rate Adjustment.

Residential Income and Age Qualifying Home Improvement Program

Regulatory Approvals

Approved for three years: April 24, 2015 (Case No. PUE-2014-00071)
 Extended for three years: May 10, 2018 (Case No. PUR-2017-00129)

Description

The Residential Income and Age Qualifying Home Improvement Program provides in-home energy assessments and installation of select energy-saving products at no cost to eligible participants.

Eligibility

The Program is available to qualified customers in the Company's Virginia service territory. The Program conforms to the Virginia Department of Housing and Community Development qualification guidelines, which is currently set at 60% State Median Income. It is also available to customers who are 60 years or older with a household income of 120% of the State Median Income. The Program is available to qualified individuals living in single-family homes, multifamily homes, and mobile homes.

Measures

- Replacing incandescent lamps (60W or 40W) with screw-in LED lamps of equivalent lighting output.
- Replacing existing non low-flow faucets with low-flow faucets
- Replacing existing non low-flow shower heads with low-flow shower heads
- Installing pipe-wrap insulation on water heater pipes that are not previously insulated
- Adding attic-insulation

Budget

Costs Approved: \$27.9 million
 Spending¹: \$20.9 million

System Level² Participation and Energy Savings

Number of Customers¹: 23,354
 Net Energy Savings^{1,3}: 19,406,572 kWh
 Net Demand Savings^{1,3}: 807 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia and North Carolina.

³ Includes Net-to-Gross Adjustment of 80%

Non-residential Small Business Program

Regulatory Approval

Approved for five years: April 19, 2016 (Case No. PUE-2015-00089)

Description

The Program provides qualifying small businesses energy use assessments and tune-up or re-commissioning of electric heating and cooling systems, along with financial incentives for the installation of specific energy efficiency measures.

Eligibility

Eligibility requirements include:

- Program participants must be commercial customers with historical demand of less than 100kW
- Participants must be privately-owned customer businesses with five or fewer qualifying locations within the Company's service territory.
- For those measures that may be available in another program, Program participant may only receive the measure through one Company program. Customers must not be exempt by statute or contract or have opted-out.

Measures

- Direct Install Lighting
- Prescriptive Re-commissioning
- Variable Frequency Drives
- Efficient Heat Pumps
- Efficient Air Conditioning Units

Budget

Costs Approved: \$23.5 million

Spending¹: \$12.7 million

System Level² Participation and Energy Savings

Number of Customers¹: 2,087

Net Energy Savings^{1,3}: 67,763,570 kWh

Net Demand Savings^{1,3}: 9,148 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia and North Carolina.

³ Includes Net-to-Gross Adjustment of 93%.

Non-residential Prescriptive Program

Regulatory Approvals

Approved for five years: June 1, 2017 (Case No. PUE-2016-00111)

Description

The Non-residential Prescriptive provides incentives to non-residential customers for the installation of energy efficiency measures.

Eligibility

Non-residential customers in the Company's Virginia service territory who are not otherwise eligible or have chosen not to participate in the Company's Small Business Program are eligible for this Program. Program participants must not be exempt by statute, under special contract and must not have elected to opt-out of paying the DSM rider.

Measures

- Refrigeration Evaporator Fans
- Commercial ENERGY STAR Appliances
- Commercial Refrigeration
- Commercial ENERGY STAR Ice Maker
- Advanced Power Strip
- Cooler/Freezer Strip Curtain
- HVAC Tune-up
- Vending Machine Controls
- Kitchen Fans VSDs
- Commercial Duct Testing and Sealing

Budget

Costs Approved: \$36 million
Spending¹: \$14.7 million

System Level² Participation and Energy Savings

Number of Customers¹: 1,592
Net Energy Savings^{1,3}: 12,201,776 kWh
Net Demand Savings^{1,3}: 5,786 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia and North Carolina.

³ Includes Net-to-Gross Adjustment of 85%

Residential Appliance Recycling Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

This Program provides incentives to residential customers to recycle freezers and refrigerators that are of specific age and size. Appliance pick-up and proper recycling services are included.

Eligibility

The Program is available to residential customers in the Company's Virginia service territory who are on a residential rate schedule. Customers must be responsible for their electric bill.

Measures

- Refrigerator recycling
- Freezer recycling

Budget

Costs Approved: \$9.2 million
Spending¹: \$0.4 million

System Level² Participation and Energy Savings

Number of Customers¹: 1,579
Net Energy Savings^{1,3}: 62,776 kWh
Net Demand Savings^{1,3}: 113 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Includes Net-to-Gross Adjustment of 60 %

20121005

Residential Efficient Products Marketplace Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

The program provides residential customers an incentive to purchase specific energy efficient appliances with a rebate through an online marketplace and through stores. The Program offers rebates for the purchase of specific energy efficient appliances, including lighting efficiency upgrades such as A-line bulbs, reflectors, decoratives, globes, retrofit kit and fixtures, as well as other appliances such as freezers, refrigerators, clothes washers, dehumidifiers, air purifiers, clothes dryers, and dishwashers.

Eligibility

The Program is available to residential customers in the Company's Virginia service territory who are on a residential rate schedule. Customers must be responsible for their electric bill.

Measures

- A-Lines (pre 2020)
- Reflectors
- Decoratives
- Globes
- Retrofit Kit and Fixture
- Freezer
- Refrigeration
- Clothes Washer
- Dehumidifier
- Air Purifier
- Clothes Dryer
- Dishwasher

Budget

Costs Approved: \$39.9 million

Spending¹: \$ 5.2 million

System Level² Participation and Energy Savings

Number of Customers^{1,3}: 2,507,265

Net Energy Savings^{1,4}: 4,258,774 kWh

Net Demand Savings^{1,4}: 4,675 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Customers represent number of units sold.

⁴ Includes Net-to-Gross Adjustment of 70%

Residential Home Energy Assessment Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

The Program provides qualifying residential with an incentive to install a variety of energy saving measures following completion of a walk-through home energy assessment. The energy saving measures would include the replacement of existing light bulbs with LED bulbs, heat pump tune-up, duct insulation/sealing, fan motors upgrades, installation of efficient faucet aerators and showerheads, water heater turndown, replacement of electric domestic hot water with heat pump water heater, heat pump upgrades (ducted and ductless), and water heater and pipe insulation.

Eligibility

This Program is available to residential customers in the Company's Virginia service territory who are on a residential rate schedule. Customers must be responsible for the electric bill and either own the residence or be able to secure permission from the owner to perform the improvements recommended. A customer premise is eligible for one Home Energy Assessment during the proposed initial five-year program approval period.

Measures

- Water heater pipe insulation
- AC and heat pump duct insulation
- LED lamp upgrades
- Low-flow showerheads and aerators
- Heat pump tune-up / upgrade / duct sealing
- Water heater thermostat set point adjustment
- High-efficiency fan motors
- Water heater replacement with a heat pump water heater
- HVAC ductless unit upgrades
- Cool roofs

Budget

Costs Approved: \$23.4 million
Spending¹: \$ 0.8 million

System Level² Participation and Energy Savings

Number of Customers¹: 0
Net Energy Savings^{1,3}: 0 kWh
Net Demand Savings^{1,3}: 0 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Includes Net-to-Gross Adjustment of 80%

20121055

Non-residential Heating and Cooling Efficiency Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

The Program provides qualifying non-residential customers with incentives to implement new and upgrade existing high efficiency heating and cooling system equipment to more efficient HVAC technologies that can produce verifiable savings.

Eligibility

The Company's Application proposes all non-residential customers that have not opted-out of paying for the applicable rider are eligible to participate in this program.

Measures

- Air conditioner upgrade
- Heat pump upgrade
- Geothermal heat pumps
- Water source heat pumps
- Chiller upgrade
- Economizers
- Variable frequency drives
- Variable refrigerant flow
- Unitary AC
- Mini splits

Budget

Costs Approved: \$9.6 million

Spending¹: \$0.4 million

System Level² Participation and Energy Savings

Number of Customers¹: 0

Net Energy Savings^{1,3}: 0 kWh

Net Demand Savings^{1,3}: 0 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Includes Net-to-Gross Adjustment of 70%

Non-residential Lighting Systems & Controls Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

This Program provides qualifying non-residential customers with an incentive to implement more efficient lighting technologies that can produce verifiable savings. The Program promotes the installation of lighting technologies including but not limited to LED-based bulbs and lighting control systems.

Eligibility

The Company's Application proposes all non-residential customers that have not opted-out of paying for the applicable rider are eligible to participate in this program.

Measures

- High efficiency T8/T5 lamps and fixtures
- LED lamps and fixtures
- Occupancy sensors / lighting controls

Budget

Costs Approved: \$12.3 million
Spending¹: \$ 0.7 million

System Level² Participation and Energy Savings

Number of Customers¹: 0
Net Energy Savings^{1,3}: 0 kWh
Net Demand Savings^{1,3}: 0 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Includes Net-to-Gross Adjustment of 70%

2105

Non-residential Window Film Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

This Program would provide qualifying non-residential customers with an incentive install solar reduction window film to lower their cooling bills and improve occupant comfort.

Eligibility

The Company's Application proposes all non-residential customers that have not opted-out of paying for the applicable rider are eligible to participate in this program.

Measures

- Solar window film

Budget

Costs Approved: \$2.3 million

Spending¹: \$0.2 million

System Level² Participation and Energy Savings

Number of Customers¹: 0

Net Energy Savings^{1,3}: 0 kWh

Net Demand Savings^{1,3}: 0 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Includes Net-to-Gross Adjustment of 80%

Non-residential Small Manufacturing Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

This Program provides qualifying customers incentives for the installation of energy efficiency improvements, consisting of primarily compressed air systems measures for small manufacturing facilities.

Eligibility

The Company's Application proposes all non-residential customers that have not opted-out of paying for the applicable rider are eligible to participate in this program.

Measures

- Leaks
- No loss drains
- Add storage
- Heat of compression dryer
- Low pressure drop Filter
- Variable speed drive air compressor
- Cycling refrigerant dryer
- Dewpoint controls
- Pressure reduction
- Downsized variable frequency drive compressor

Budget

Costs Approved: \$6.4 million

Spending¹: \$0.4 million

System Level² Participation and Energy Savings

Number of Customers¹: 0

Net Energy Savings^{1,3}: 0 kWh

Net Demand Savings^{1,3}: 0 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Includes Net-to-Gross Adjustment of 90%

Non-residential Office Program

Regulatory Approvals

Approved for five years: June 2, 2019 (Case No. PUR-2018-00168)

Description

The Program provides qualifying customers incentives for the installation of energy efficiency improvements, consisting of recommissioning measures at smaller office facilities.

Eligibility

Non-residential customers who have not opted-out of paying for the rider and take service under the following rate schedules: 5, 25, 5C, 5P, GS-1, GS-2T, 6, 6TS, 7, 29, GS-2 ND, DP-1, DP-2, and SP.

Measures

- Schedule lighting
- Schedule HVAC
- Temperature setback
- Condenser water reset
- Discharge air temp reset
- Static pressure reset
- Enthalpy economizer
- Variable air volume box minimum

Budget

Costs Approved: \$6.0 million
 Spending¹: \$0.5 million

System Level² Participation and Energy Savings

Number of Customers¹: 0
 Net Energy Savings^{1,3}: 0 kWh
 Net Demand Savings^{1,3}: 0 kW

¹ Cumulative through December 31, 2019.

² Represents Virginia only.

³ Includes Net-to-Gross Adjustment of 90%

21055

Proposed DSM Phase IX Programs

Residential Income and Age Qualifying Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

The Residential Income and Age Qualifying Program would provide in-home energy assessments and installation of select energy-saving products at no cost to eligible participants. As with the Company's other low-income programs, the Company will partner with Weatherization Service Providers (WSPs) to perform community outreach and install program measures to eligible customers.

Moreover, the proposed Program would allow for providers to charge up to 10% of their yearly allocation for admin. on single family jobs. In addition, the proposed program design has a 15% health & safety cap to bring additional benefits to customers in the form of wider opportunities for bill savings.

Eligibility

The Program conforms to the Virginia Department of Housing and Community Development qualification guidelines, which is currently set at 60% State Median Income. It is also available to customers who are 60 years or older with a household income of 120% of the State Median Income. The Program is available to qualified individuals living in single-family homes, multifamily homes, and mobile homes.

Measures

- LEDs
- Energy Saving Showerhead
- High Efficiency Faucet Aerator
- Pipe Wrap for Water Heaters
- Attic Insulation
- Heat Pump Tune-Up
- AC Tune-Up
- Air Sealing
- Duct Sealing
- Water Heater Tank Wrap
- Refrigerator Replacement
- Floor Insulation
- Safety

Projected Five Year Budget¹

Total: \$40 million

¹ Does not include 5% cost variance.

Projected Participation

Total (Cumulative 2022-2026): 51,725 Customers

System Level¹ Projected Net Savings²

Total (Cumulative 2022-2026) Energy: 7,219 MWh

Total 2026 Coincident Peak Reductions: 1,316 kW

¹ Represents Virginia and North Carolina.

² Projected Net-to-Gross Adjustment of 80%.

Residential Water Savings (EE) Program

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

The Residential Water Savings (EE) Program is designed to give the Company's residential customers control over their water related energy use. The proposed Program leverages the installation of smart communicating water heating and pool pump technologies to facilitate more efficient operation while reducing overall electricity usage and peak demand response. Customers have the option to purchase a qualified program product online, in-store, equipment distributor, or through qualified local trade allies.

The proposed Program design consists of a point of sale incentive that will be offered to qualifying residential customers for the purchase and installation of a communicating heat pump water heater unit or variable speed pool pump that meets Energy Star performance requirements. The program will be open to any manufacturer, make and model that meets or exceeds the Energy Star requirements. Additionally, all customers who purchase and install a qualified product will be offered the opportunity to enroll in a peak demand reduction (DR) program to provide customers with additional energy savings and incentives. Customers who purchase and install the qualifying program measure, will not be required to enroll in the DR component of the Program.

Eligibility

The Program would be available to residential customers in the Company's Virginia service territory who are on a residential rate schedule and who reside in individual single-family homes. Customers must be responsible for the electric bill and either own the residence or be able to secure permission from the owner to perform the recommended improvements.

Measures

- Domestic hot water heat pump
- Variable Speed Pool Pumps

Projected Five Year Budget¹

Total: \$10.5 million

Projected Participation

Total (Cumulative 2022-2026): 20,400 Customers

¹ Does not include 5% cost variance.

System Level¹ Projected Net Savings²

Total (Cumulative 2022-2026) Energy:	71,406 MWh
Total 2026 Coincident Peak Reductions:	1,896 kW

¹ Represents Virginia and North Carolina.

² Projected Net-to-Gross Adjustment of 90%.

Residential Water Savings (DR) Program

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

As part of the proposed Residential Water Savings (DR) Program, all customers who purchase and install a qualified product (EE component) will be offered the opportunity to enroll in the peak demand reduction (DR) component of the DR Program. Additionally, Customers who have previously purchased a qualifying product and who have the eligible products installed, will be offered the opportunity to enroll in the DR component of the Program. Customers will be offered an annual incentive (above the product purchase incentive amount) to participate in the peak reduction component year-round and an additional reduced incentive for each subsequent year they continue to participate. Customers would be allowed to opt-out of a certain number of events.

Eligibility

The Program would be available to residential customers in the Company's Virginia service territory who are on a residential rate schedule and who reside in individual single-family homes. Customers must be responsible for the electric bill and either own the residence or be able to secure permission from the owner to perform the recommended improvements. Customers who have previously installed an energy efficient smart technology will not be eligible for a product rebate but will be eligible to enroll in the peak DR component.

Measures

- Domestic hot water heat pump
- Variable Speed Pool Pumps

Projected Five Year Budget¹

Total: \$2.1 million

Projected Participation

Total (Cumulative 2022-2026): 13,795 Customers

System Level² Projected Net Savings³

Total (Cumulative 2022-2026) Energy:	339 MWh
Total 2026 Coincident Peak Reductions:	8,789 kW

¹ Does not include 5% cost variance.

² Represents Virginia and North Carolina.

³ Projected Net-to-Gross Adjustment of 95%.

2025

Residential Smart Home Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

The Residential Smart Home Program would provide the Company's residential customers a suite of smart home products that provide seamless integration in the home. The program will deliver the energy efficient measures bundled in two versions of a Smart Home Kit, so that customers can benefit from a fully integrated set of compatible smart products. The Smart Home Kit will include general instructions for installing the specific energy efficient measure within their home. Customers will be encouraged to utilize their smart phone or tablets to access the connected functionality of the Smart Home kit through individual manufacturer smart thermostat, smart home hub and smart home energy monitor apps. Smart phone and tablet apps and individual manufacturer websites will include links to videos and installation "how-to" guidance documents, especially for do-it-yourself products such as smart plugs, LEDs, and motion sensors. Customers will be guided to enroll separately in the Dominion Smart Thermostat DR and HVAC optimization programs based on individual program eligibility requirements.

Eligibility

The Program would be available to residential customers in the Company's Virginia service territory who are on a residential rate schedule and who reside in individual single-family homes and who are not participating in the Company's DSM Phase VII Residential Smart Thermostat (EE) Program. Customers must be responsible for the electric bill and either own the residence or be able to secure permission from the owner to perform the recommended improvements.

Measures

- Smart Plugs
- Connected 9.5W ENERGY STAR LED
- Smart Home Hub with Entry/Motion Sensor
- Smart Thermostat with Voice Control and Temperature/Humidity Sensor
- Smart Home Energy Monitor (w/solar option)

Projected Five Year Budget¹

Total: \$15.1 million

Projected Participation

Total (Cumulative 2022-2026): 51,342 Customers

¹ Does not include 5% cost variance.

System Level¹ Projected Net Savings²
Total (Cumulative 2022-2026) Energy:
Total 2026 Coincident Peak Reductions:

132,298 MWh
5,216 kW

¹ Represents Virginia and North Carolina.

² Projected Net-to-Gross Adjustment 85%.

Residential Virtual Audit Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

The Residential Virtual Audit Program would offer customers a self-directed home energy assessment using an audit software, completed entirely by the customer, with no trade ally entering the home. Customers would be directed to a website or toll-free number where they would answer a set of questions with answers specific to the conditions and systems in their home with aids to help them answer accurately. From this information, the software would generate a report of recommended measures and actions the customer could take to improve the efficiency of their home. The report would also identify the Company's other active energy efficiency programs that fit each customer's needs.

The software will generate a visually compelling report showing projected energy and potential cost savings specific to the customer's site conditions. The customer can access the report and review the findings and recommended priorities at any time at their convenience. A key goal of the audit report is to encourage and motivate participants to move forward with the selection and completion of the installation of the proposed Program measures. The audit report will present the various recommendations to the customer in enough detail to help them understand the costs and benefits of each measure to help drive the customer to a decision to move forward. The Program will then provide participating customers with access to lists of participating contractors and tips on how they can find and select a quality installation contractor.

Furthermore, customers who complete a self-assessment would then be given the opportunity to receive a kit of low-cost measures at no cost to them. The measures would be based on questions in the assessment determining which measures would address specific energy savings opportunities in each home to get them started. The audit will typically take between 15 and 30 minutes to complete depending on home complexity and will include: review of energy using systems appliances in all areas of the home including attic and crawl spaces; approximation of leakage and insulation levels; and descriptions and efficiency determinations of major equipment.

As part of the questions the customer will answer, a kit of low-cost measures will be selected that best fits their needs and sent to them at no charge to the customer. The kit will consist of some combination of LED specialty bulbs, energy efficient showerheads and aerators, and easy to self-install weatherization products based on the assessment identified needs. Additionally, the customer will receive instructions on installation and proper use of the kit measures.

Eligibility

The Program would be available to residential customers in the Company's Virginia service territory who are on a residential rate schedule and who reside in individual single-family homes. Customers must be responsible for the electric bill and either own the residence or be able to secure permission from the owner to perform the recommended improvements. Participation in

the self- assessment is open to a residential customer who has not participated in the Company's DSM Phase VII Residential Home Energy Assessment Program and the DSM Phase VIII Residential Home Retrofit, Residential Manufactured Home, and the Residential Energy Efficiency Kits Programs. Customers who have participated in any of the above Programs would not be eligible to receive a kit of measures under the proposed Residential Virtual Audit Program.

Measures

- Low-flow showerheads and aerators
- Water heat pipe insulation
- LED lamp upgrades
- Door Weather-stripping
- Window Weather-stripping
- Door Sweep
- Outlet / Switch Gaskets
- Caulking
- Outlet / Switch Gaskets Cooling and Elec Heat Pump
- Tier 1 Smart Strip

Projected Five Year Budget¹

Total: \$17.2 million

Projected Participation

Total (Cumulative 2022-2026): 235,000 Customers

System Level² Projected Net Savings³

Total (Cumulative 2022-2026) Energy: 203,269 MWh

Total 2026 Coincident Peak Reductions: 13,729 kW

¹ Does not include 5% cost variance.

² Represents Virginia and North Carolina.

³ Projected Net-to-Gross Adjustment of 60%.

Non-residential Agricultural Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

This Program would provide qualifying non-residential customers with incentives to implement specific energy efficiency measures to help agribusinesses replace aging, inefficient equipment and systems with new, energy-efficient technologies. The Program is designed to help agricultural customers make their operations more energy-efficient by providing incentives for efficient agricultural equipment and lighting specifically used in agricultural applications.

Eligibility

All non-residential customers, who have not opted out of paying the rider are eligible.

Measures

- High Volume Low Speed Fans
- Automatic Milker Take Off (Automatic milker takeoffs use a sensor that stop the cow milking process when the flow of milk reaches a preset flow level. This saves vacuum pump energy that is used in the milking process)
- Low Pressure Irrigation
- Irrigation Pump Variable Frequency Drives (VFD)
- Poultry LED
- Poultry House Fan VFD
- Circulation/Ventilation Fans
- Dust Collection System Fan VFD
- Tobacco Curing Fan VFD
- Grain Storage Aeration Fan Controls
- Greenhouse Ventilation Fan VFD
- Greenhouse LED Lighting

Projected Five Year Budget¹

Total: \$ 4.5 million

Projected Participation

Total (Cumulative 2022-2026): 755 Customers

¹ Does not include 5% cost variance.

2021210055

System Level¹ Projected Net Savings²

Total (Cumulative 2022-2026) Energy: 24,862 MWh
Total 2026 Coincident Peak Reductions: 1,997 kW

¹ Represents Virginia and North Carolina.

² Projected Net-to-Gross Adjustment of 97%.

Non-residential Building Automation Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

This Program would provide qualifying non-residential customers with incentives to install new building automation systems in facilities that do not have centralized controls or have an antiquated system that requires full replacement. The Program would be marketed and promoted to controls contractors who design, install, and maintain fully functional building automation systems. Product lines would include brands like Carrier, Schneider Electric, Johnson Controls, Siemens, and Trane.

Eligibility

All non-residential customers, who have not opted out of paying the rider are eligible.

Measures

- Efficient Building Automation System Programming

Projected Five Year Budget¹

Total: \$4.9 million

Projected Participation

Total (Cumulative 2022-2026): 150 Customers

System Level² Projected Net Savings³

Total (Cumulative 2022-2026) Energy: 54,097 MWh

Total 2026 Coincident Peak Reductions: 8,222 kW

¹ Does not include 5% cost variance.

² Represents Virginia and North Carolina.

³ Projected Net-to-Gross Adjustment of 90%.

Non-residential Building Optimization Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

This Program would provide qualifying non-residential customers incentives for the installation of energy efficiency improvement, consisting of recommissioning measures. The Program seeks to capture energy savings through control system audits and tune-up measures in facilities with Building Energy Management Systems.

Eligibility

All non-residential customers, who have not opted out of paying the rider are eligible.

Measures

- Schedule lighting
- Schedule HVAC
- Temperature setback
- Condenser water reset
- Discharge air temp reset
- Static pressure reset
- Enthalpy economizer
- Variable air volume box minimum
- Chilled water reset
- Outdoor air damper adjustments
- Coil cleaning
- Pump pressure reduction
- Scheduling non-HVAC equipment
- Advanced rooftop unit controls

Projected Five Year Budget¹

Total: \$5.7 million

Projected Participation

Total (Cumulative 2022-2026): 150 Customers

¹ Does not include 5% cost variance.

System Level¹ Projected Net Savings²

Total (Cumulative 2022-2026) Energy:	65,960 MWh
Total 2026 Coincident Peak Reductions:	10,025 kW

¹ Represents Virginia and North Carolina.

² Projected Net-to-Gross Adjustment of 90%.

Non-residential Engagement Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

The proposed Program would engage commercial buildings in energy management best practices that increase awareness of operational and behavioral energy savings opportunities. The Program would educate and train businesses' facility management staff on ways to achieve energy savings through optimization of building energy performance and integrating ongoing commissioning best practices into their operations.

Through a customer engagement portal, building operators can also access educational content and technical resources as part of a series of operator challenges. By completing these challenges, participants will review and implement energy efficient operational best practices, earning them points while competing against facility teams from other participating buildings.

The non-residential engagement program's operator energy challenges were designed to include technical resources and advice to educate building operators on how they can evaluate their building system performance and take corrective action. The energy challenges include, but are not limited to the following building retuning activities:

1. Review outside air damper operation
2. Minimize the introduction of outside air
3. Review of supply fan operation and minimum flow setpoints
4. Review of airside economizer operation and performance
5. Review of air-handler supply air temperature sequences and setpoints
6. Review of HVAC schedules and zone temperature setbacks
7. Review lighting schedules and alignment with occupancy and use
8. Review lighting levels
9. Review condenser water setpoint and sequencing
10. Review chilled water temperature setpoint and sequencing
11. Review off-peak heating loads and lockouts
12. Review AHU static pressure setpoints and sequencing
13. VAV box sequencing

Eligibility

All non-residential customers, who have not opted out of paying the rider are eligible.

Measures

- Building Operator Training

Projected Five Year Budget¹

Total: \$ 8.1 million

Projected Participation

Total (Cumulative 2022-2026): 285 Customers

System Level² Projected Net Savings³

Total (Cumulative 2022-2026) Energy: 56,252 MWh

Total 2026 Coincident Peak Reductions: 8,075 kW

¹ Does not include 5% cost variance.

² Represents Virginia and North Carolina.

³ Projected Net-to-Gross Adjustment of 90%.

Non-residential Enhanced Prescriptive Program (EE)

Regulatory Approval

Requesting approval to operate for five years (January 1, 2022 – December 31, 2026)

Description

This Program would provide qualifying non-residential customers with incentives for the installation of refrigeration, commercial kitchen equipment, HVAC improvements and maintenance and installation of other program specific, energy efficiency measures.

Eligibility

All non-residential customers, who have not opted out of paying the rider are eligible.

Measures

- Food Seal Wrappers
- EC Motors for heating and cooling
- Heat Pump Pool Cover
- Parking Deck Ventilation
- Ozone Laundry
- Pool Pump VSD
- Commercial Dryers
- Guest Room Energy Management (GERS) Systems
- Duct Testing and Sealing
- HVAC System Tune-up
- Refrigeration
- Kitchen Appliances

Projected Five Year Budget¹

Total: \$22.4 million

Projected Participation

Total (Cumulative 2022-2026): 3,000 Customers

System Level² Projected Net Savings³

Total (Cumulative 2022-2026) Energy: 217,259 MWh

Total 2026 Coincident Peak Reductions: 10,781 kW

¹ Does not include 5% cost variance.

² Represents Virginia and North Carolina.

³ Projected Net-to-Gross Adjustment of 90%.

HB 2789 Solar Program

Regulatory Approval

Requesting approval to operate for three years (January 1, 2022 – December 31, 2024, Virginia only)

Description

This program would provide a mechanism for customers who meet certain income, age, disability and previous program participation requirements regarding weatherization to receive, at no cost to the customer, photovoltaic solar panels installed at their residence.

Program characteristics:

- Solar installations must be installed behind the participant's meter and net energy metered.
- Solar panels and associated inverters and connecting equipment would be owned by program participant.
- Solar installations would be standardized across participants. Residential participants would receive an installation with a maximum value to be established in consultation with stakeholders in the range of 3- 5 kWac; individually metered multi-family residences or facilities providing residences would receive an installation no larger than a 10 kWac.
- Funding for battery energy storage systems not included in program.
- Limited funding would be provided for necessary roof repair / reinforcement.

The program would be managed by a demand-side management program implementation firm. The solar installations would be managed by Weatherization Service Providers who are participating in the Company's proposed DSM Phase IX Income and Age Qualifying Program.

The program implementation firm would provide a minimum of the following services:

- Confirm customer/project eligibility
- Confirm site suitability screening
- Review and approve project scopes of work
- Perform on-site visits to ensure quality control
- Review project submittals to ensure all documentation is captured
- Approve projects and administer funds
- Facilitate solar training for the provider network and implementer staff
- Identify certified solar installers to participate in areas not covered by the Weatherization Service Provider (WSP) network
- Track/Evaluate program spending

The Weatherization Service Providers would provide a minimum of the following services:

- Identify eligible customers and eligible worksites for projects
- Perform initial site suitability assessment
- Educate eligible customers on the process and systems to ensure the perfect match
- Submit project scopes of work to program implementer for review
- Contract with certified solar installers to perform all work and on-going maintenance
- Oversee projects through completion and ensure projects meet quality standards
- Submit completed projects to program implementer for reimbursement
- Provide primary telephone contacts for interested and participating customers
- Participating solar providers will be expected to hire diverse firms for the solar component work and participate in Targeted Solar Education Program

Training / Workforce Development:

The program would provide the following:

- Training for program implementation staff and 1-2 staff members at each WSP aimed at enabling each WSP to oversee a solar project from start to finish, ensuring certain levels of installation quality and competence. The program implementer will assist with identifying and helping to facilitate a training program that meets industry standards such as those recognize by DOE that apply towards the industry standard certification through the North American Board of Certified Energy Practitioners (NABCEP).
- Targeted solar education funding aimed at funding solar technician NABCEP-certified training targeting small, diverse-owned firms.

Eligibility

Customers who participate in this program would have to meet the following criteria:

- Program participants must meet certain income, age, or disability requirements.
- Program participants must have participated in a Dominion Energy Virginia program that provides measures to reduce heating and cooling.

Measures

- Installation of solar photovoltaic panels
- Panels mounted on the roof of the customer's residence or on a pole on the customer's property

Projected Five Year Budget¹

Total: \$31.1 million

Projected Participation

Total (Cumulative 2022-2024): 1,665 Customers

¹ Does not include 5% cost variance.

[illegible]

¹Gray shading reflects Programs where simultaneous participation is prohibited

Our findings reflect PwPwz where clinicians participate in collaborative

Phase 1
Case No. PUE-2009-00081
Filed: July 28, 2009
Order: March 24, 2010
Dollars in Millions

Dominion Virginia Power
Virginia-based DSM Programs

Program	Segment	Type	Result	Costs Requested ¹	Costs Approved ²	Costs to Date ³	Start Date ⁴	End Date	Currently In	Participation ⁵
AC Cycling	Residential	Peak Shaving	Approved ⁶⁷	\$46.5M+ 61.6M+\$54M	\$175.1M (46.5M+61.6M +13.0M+\$54M)	\$84.3M	6/1/10	Active	Base Rates	154,787 Gross Customers
Lighting (2 Years Only)	Residential	Energy Efficiency	Approved	\$13.0M		\$12.6M	5/1/10	12/1/11	N/A	4,222,509 Bulbs
Low Income	Residential	Energy Efficiency	Approved ⁸	\$27.4M	\$41.0M (27.4M+13.6M)	\$16.7M	4/1/10	12/31/14	N/A	11,487 Customers
Lighting	Non-Residential	Energy Efficiency	Approved ⁹	\$12.8M		\$10.7M	6/1/10	7/1/12	N/A	2,409 Customers
HVAC	Non-Residential	Energy Efficiency	Approved ⁹	\$2.6M	\$15.4M	\$2.9M	7/1/10	7/1/12	N/A	123 Customers
Refrigerator Turn-In	Residential	Energy Efficiency	Denied	\$3.9M						
Heat Pump Upgrade	Residential	Energy Efficiency	Denied	\$14.1M						
Heat Pump Tune-Up	Residential	Energy Efficiency	Denied	\$19.9M						
Energy Star New Homes	Residential	Energy Efficiency	Denied	\$8.1M						
Distributed Generation	Non-Residential	Peak Shaving	Denied	\$12.1M						
Curtailment Service	Non-Residential	Peak Shaving	Denied	\$11.8M						
Voltage Conservation			Withdrawn							

¹ Derived from Exhibit 51 in Case No. PUE-2009-00081, which calculated cost caps (exclusive of lost revenues) based on 11 proposed programs. The Commission approved 5 Programs, so these figures are based on the elimination of 6 programs from Exhibit 51.

² Not calculated to include lost revenues for Cost limits in Case PUE-2009-00081.

³ As of December 31, 2019.

⁴ Indicates the month in which the first participant was recorded.

⁵ As of December 31, 2019.

⁶ Program extension of three years approved in Case No. PUE-2012-00100, with additional cost cap approval of \$61,622,665 (to include lost revenues).

⁷ Program extension of five years approved in Case No. PUE-2015-00089, with additional cost cap approval of \$54,131,049 (to include lost revenues).

⁸ Program extension of two years approved in Case No. PUE-2012-00100, with additional cost cap approval of \$13,617,854 (to include lost revenues).

⁹ Program additional funding denied in Case No. PUE-2011-00093.

550012102

Phase II
Case No. PUE-2011-00093
Filed: September 1, 2011
Order: April 30, 2012
Dollars in Millions

Program	Segment	Type	Result	Costs Requested ¹⁰	Costs Approved ¹¹	Costs to Date	Start Date	End Date	Currently In	Participation
Home Energy Checkup	Residential	Energy Efficiency	Approved	\$5.9M		\$20.2M	Oct. 2012	6/30/17	A5 - C2A	51,914 Customers
Duct Sealing	Residential	Energy Efficiency	Approved	\$7.7M	\$90.0M ¹²	\$5.1M	Oct. 2012	6/30/17	A5 - C2A	3,298 Heat Pumps
Heat Pump Upgrade	Residential	Energy Efficiency	Approved	\$24.5M		\$11.8M	Oct. 2012	6/30/17	A5 - C2A	17,785 Heat Pumps
Heat Pump Tune-Up	Residential	Energy Efficiency	Approved	\$27.9M		\$18.6M	Oct. 2012	6/30/17	A5 - C2A	87,126 Heat Pumps
Energy Audit	Non-Residential	Energy Efficiency	Approved	\$8.8M	\$45.0M ¹³	\$12.0M	Dec. 2012	6/30/17	A5 - C2A	1,625 Customers
Duct Testing & Sealing	Non-Residential	Energy Efficiency	Approved	\$24.1M		\$29.0M	Nov. 2012	6/30/17	A5 - C2A	4,444 Customers
Distributed Generation	Non-Residential	Peak Shaving	Approved	\$14.2M+\$4.8M		\$7.7M	N/A ¹⁵	Active	A5 - C1A	36.1 Megawatts
EV Pilot Cost Recovery	Residential	Peak Shaving	Approved	\$825M	\$825M	\$8M	Oct. 2011	Active	A5 - C1A	588 Customers
Lighting Phase II	Residential	Energy Efficiency	Denied ¹⁶	\$25.2M						
Refrigeration	Non-Residential	Energy Efficiency	Denied ¹⁶	\$47.9M						

¹⁰ Includes Program O&M Costs, Margin on Program Costs, and Common Costs associated with approved programs.

¹¹ Includes Program O&M Costs, Margin on Program Costs, Common Costs associated with approved programs, and Lost Revenues.

¹² Dominion should strive to allocate a significant portion of its program expenditures to the Residential Home Energy Check-Up Program.

¹³ Dominion should strive to allocate a significant portion of its program expenditures to the Commercial Energy Audit Program.

¹⁴ Includes Program O&M Costs of \$4.6M, and Common Costs of \$275M. PUE-2016-00111

¹⁵ Some participants originally enrolled during the Distributed Generation Pilot Program.

¹⁶ Commission ordered in Case No. PUE-2011-00093 that condenser coil measure should be added to the Non-Residential Energy Audit.

550012702

Phase III
Case No. PUE-2013-00072
Filed: August 30, 2013
Order: April 29, 2014
Dollars in Millions

Program	Segment	Type	Result	Costs Requested	Costs Approved	Costs to Date	Start Date	End Date	Currently In	Participation
Window Film	Non-Residential	Energy Efficiency	Approved			\$2.3M	7/1/2014	Active	A5 – C2A	253 Customers
Lighting Systems & Controls	Non-Residential	Energy Efficiency	Approved	\$114.4M ¹⁷	\$71.6M	\$38.1M	7/1/2014	Active	A5 – C2A	4,501 Customers
Heating & Cooling Efficiency	Non-Residential	Energy Efficiency	Approved			\$8.0M	7/1/2014	Active	A5 – C2A	406 Customers

¹⁷ Includes Program O&M Costs of \$71.9M, Margin on Program Costs of \$8.3M, Common Costs of \$12M, and \$22.2M of Lost Revenues.

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Phase IV
Case No. PUE-2014-00071
Filed: August 29, 2014
Order: April 24, 2015
Dollars in Millions

Program	Segment	Type	Result	Costs Requested	Costs Approved	Costs to Date	Start Date	End Date	Currently In	Participation
Income and Age Qualifying Home Improvement	Residential	Energy Efficiency	Approved			\$20.9M	7/1/2015	Active	A5 - C2A	22,929 Customers
Residential Appliance Recycling	Residential	Energy Efficiency	Approved	\$109.4M ¹⁸ + \$23.6M ¹⁹	\$15.2M+\$12.7M ²⁰ \$4.8M	\$4.6M	7/1/2015	7/31/2017	A5 - C2A	14,144 Appliances
Qualifying Small Business Improvement	Non-Residential	Energy Efficiency	Denied							

¹⁸ Includes Program O&M Costs of \$74.3M, Margin on Program Costs of \$7.4M, Common Costs of \$4.9M, and \$22.8M of Lost Revenues.
¹⁹ Includes Program O&M Costs of \$19.1M, Margin on Program Costs of \$1.8M, Common Costs of \$1.1M, and \$1.6M of Lost Revenues.
²⁰ Program extension of three years approved in Case No. PUR-2017-00129, with additional cost cap approval of \$12.7M.

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Phase V
Case No. PUE-2015-00089
Filed: August 28, 2015
Order: April 19, 2016
Dollars in Millions

Program	Segment	Type	Result	Costs Requested	Costs Approved	Costs to Date	Start Date	End Date	Currently In	Participation
Small Business Improvement	Non-Residential	Energy Efficiency	Approved	\$51.4M ²¹	\$23.5M	\$12.7M	7/1/2016	Active	A5 - C2A	2,016 Customers
Residential Programmable Thermostat	Residential	Energy Efficiency	Denied							

²¹ Includes Program O&M Costs of \$35.1M, Margin on Program Costs of \$3.5M, Common Costs of \$2.5M, and \$10.2M of Lost Revenues.

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Phase VI
Case No. PUE-2016-00111
Filed: October 3, 2016
Order: June 1, 2017
Dollars in Millions

Program	Segment	Type	Result	Costs Requested	Costs Approved	Costs to Date	Start Date	End Date	Currently In	Participation
Home Energy Assessment	Residential	Energy Efficiency	Denied	\$64.6M ²²						
Non-Residential Prescriptive	Non-Residential	Energy Efficiency	Approved	\$70.3M ²³	\$36.0M	\$14.7M	7/1/2017	Active	A5 - C2A	1,535 Customers

²² Includes Program O&M Costs of \$43.8M, Margin on Program Costs of \$4.5M, Common Costs of \$2.6M, and \$13.6M of Lost Revenues.
²³ Includes Program O&M Costs of \$29.0M, Margin on Program Costs of \$2.8M, Common Costs of \$1.7M, and \$36.7M of Lost Revenues.

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Phase VII
Case No. PUR-2018-00168
Filed: October 3, 2018
Order: May 2, 2019
Dollars in Millions

Program	Segment	Type	Result	Costs Requested	Costs Approved ²⁴	Costs to Date	Start Date	End Date ²⁵	Currently In	Participation
Appliance Recycling	Residential	Energy Efficiency	Approved ²⁶	\$14.0M	\$9.2M	\$0.4M	7/1/2019	Active	A5 - C3A	1,579 Appliances
Home Energy Assessment	Residential	Energy Efficiency	Approved ²⁷	\$27.6M	\$23.4M	\$0.8M	7/1/2019	Active	A5 - C3A	
Smart Thermostat	Residential	Energy Efficiency	Approved ²⁸	\$11.4M	\$7.0M		7/1/2019	N/A	A5 - C3A	
Smart Thermostat	Residential	Peak Shaving	Approved ²⁹	\$10.5M	\$10.5M		7/1/2019	N/A	A5 - C1A	
Efficient Products	Residential	Energy Efficiency	Approved ³⁰	\$82.3M	\$39.9M	\$5.2M	7/1/2019	Active	A5 - C3A	2,091,974 Appliances
Customer Engagement	Residential	Energy Efficiency	Approved ³¹	\$7.4M	\$2.3M		7/1/2019	N/A	A5 - C3A	
Heating & Cooling Efficiency	Non-Residential	Energy Efficiency	Approved ³²	\$14.6M	\$9.6M	\$0.4M	7/1/2019	Active	A5 - C3A	
Lighting Systems & Controls	Non-Residential	Energy Efficiency	Approved ³³	\$16.7M	\$12.3M	\$0.7M	7/1/2019	Active	A5 - C3A	
Window Film	Non-Residential	Energy Efficiency	Approved ³⁴	\$3.2M	\$2.3M	\$0.2M	7/1/2019	Active	A5 - C3A	
Office	Non-Residential	Energy Efficiency	Approved ³⁵	\$8.4M	\$6.0M	\$0.5M	7/1/2019	Active	A5 - C3A	
Small Manufacturing	Non-Residential	Energy Efficiency	Approved ³⁶	\$7.9M	\$6.4M	\$0.4M	7/1/2019	Active	A5 - C3A	

Phase VIII
Case No. PUR-2019-00201

- ²⁴ Costs approved represent program cost, common cost, and margin except for peak shaving program (exclude margin).
²⁵ Smart Thermostat EE & DR as well as Customer Engagement pulled from Phase VII and reintroduced as Phase VIII.
²⁶ Includes Program O&M Costs of \$8.0M, Margin on Program Costs of \$0.7M, Common Costs of \$0.5M, and \$4.8M of Lost Revenues.
²⁷ Includes Program O&M Costs of \$20.3M, Margin on Program Costs of \$1.9M, Common Costs of \$1.2M, and \$4.2M of Lost Revenues.
²⁸ Includes Program O&M Costs of \$6.1M, Margin on Program Costs of \$0.6M, Common Costs of \$0.4M, and \$4.4M of Lost Revenues.
²⁹ Includes Program O&M Costs of \$10.0M, and Common Costs of \$0.5M.
³⁰ Includes Program O&M Costs of \$34.6M, Margin on Program Costs of \$3.2M, Common Costs of \$2.1M, and \$42.5M of Lost Revenues.
³¹ Includes Program O&M Costs of \$2.0M, Margin on Program Costs of \$0.2M, Common Costs of \$0.1M, and \$5.0M of Lost Revenues.
³² Includes Program O&M Costs of \$8.3M, Margin on Program Costs of \$0.8M, Common Costs of \$0.5M, and \$5.0M of Lost Revenues.
³³ Includes Program O&M Costs of \$10.7M, Margin on Program Costs of \$1.0M, Common Costs of \$0.6M, and \$4.4M of Lost Revenues.
³⁴ Includes Program O&M Costs of \$2.0M, Margin on Program Costs of \$0.2M, Common Costs of \$0.1M, and \$9.9M of Lost Revenues.
³⁵ Includes Program O&M Costs of \$5.2M, Margin on Program Costs of \$0.5M, Common Costs of \$0.3M, and \$2.4M of Lost Revenues.
³⁶ Includes Program O&M Costs of \$5.6M, Margin on Program Costs of \$0.5M, Common Costs of \$0.3M, and \$1.4M of Lost Revenues.

Phase VIII
Case No.
PUR-2019-00201
Filed: December 3, 2019
Order: July 30, 2020
Dollars in Millions

Program	Segment	Type	Result	Costs Requested	Costs Approved ³⁷	Costs to Date	Start Date	End Date ³⁸	Currently In	Participation
Customer Engagement	Residential	Energy Efficiency	Approved ³⁹	\$14.2M	\$9.3M		1/1/2021		A5 - C3A	
Energy Efficiency Kits	Residential	Energy Efficiency	Approved ⁴⁰	\$18.8M	\$10.7M		1/1/2021		A5 - C3A	
Electric Vehicle	Residential	Energy Efficiency	Approved ⁴¹	\$7.6M	\$2.8M		1/1/2021		A5 - C3A	
Electric Vehicle	Residential	Peak Shaving	Approved ⁴²	\$2.0M	\$2.0M		1/1/2021		A5 - C1A	
Smart Thermostat	Residential	Energy Efficiency	Approved ⁴³	\$9.9M	\$7.0M		1/1/2021		A5 - C3A	
Smart Thermostat	Residential	Peak Shaving	Approved ⁴⁴	\$10.5M	\$10.5M		1/1/2021		A5 - C1A	
Manufactured Housing	Residential	Energy Efficiency	Approved ⁴⁵	\$11.5M	\$9.3M		1/1/2021		A5 - C3A	
Multi Family	Residential	Energy Efficiency	Approved ⁴⁶	\$19.2M	\$11.9M		1/1/2021		A5 - C3A	
New Construction	Residential	Energy Efficiency	Approved ⁴⁷	\$31.3M	\$26.7M		1/1/2021		A5 - C3A	
Home Retrofit	Residential	Energy Efficiency	Approved ⁴⁸	\$13.6M	\$11.2M		1/1/2021		A5 - C3A	
HB2789 HVAC	Residential	Energy Efficiency	Approved ⁴⁹	\$37.7M	\$36.0M		1/1/2021		A5 - C3A	
EE Products	Non-Residential	Energy Efficiency	Approved ⁵⁰	\$12.6M	\$10.5M		1/1/2021		A5 - C3A	
Multi Family	Non-Residential	Energy Efficiency	Approved ⁵¹	\$4.0M	\$2.6M		1/1/2021		A5 - C3A	

³⁷ Costs approved represent program cost, common cost, and margin except for peak shaving program (exclude margin).

³⁸ Smart Thermostat EE & DR as well as Customer Engagement pulled from Phase VII and reintroduced as Phase VIII.

³⁹ Includes Program O&M Costs of \$8.0M, Margin on Program Costs of \$0.7M, Common Costs of \$0.5M, and \$4.9M of Lost Revenues.

⁴⁰ Includes Program O&M Costs of \$9.3M, Margin on Program Costs of \$0.9M, Common Costs of \$0.6M, and \$8.0M of Lost Revenues.

⁴¹ Includes Program O&M Costs of \$2.4M, Margin on Program Costs of \$0.2M, Common Costs of \$0.1M, and \$4.9M of Lost Revenues.

⁴² Includes Program O&M Costs of \$2.0M, and Common Costs of \$0.1M.

⁴³ Includes Program O&M Costs of \$6.1M, Margin on Program Costs of \$0.6M, Common Costs of \$0.4M, and \$2.9M of Lost Revenues.

⁴⁴ Includes Program O&M Costs of \$10.0M, and Common Costs of \$0.5M.

⁴⁵ Includes Program O&M Costs of \$8.0M, Margin on Program Costs of \$0.7M, Common Costs of \$0.5M, and \$2.2M of Lost Revenues.

⁴⁶ Includes Program O&M Costs of \$10.4M, Margin on Program Costs of \$1.0M, Common Costs of \$0.6M, and \$7.3M of Lost Revenues.

⁴⁷ Includes Program O&M Costs of \$23.2M, Margin on Program Costs of \$2.2M, Common Costs of \$1.4M, and \$4.5M of Lost Revenues.

⁴⁸ Includes Program O&M Costs of \$9.7M, Margin on Program Costs of \$0.9M, Common Costs of \$0.6M, and \$2.4M of Lost Revenues.

⁴⁹ Includes Program O&M Costs of \$31.2M, Margin on Program Costs of \$2.9M, Common Costs of \$1.9M, and \$1.6M of Lost Revenues.

⁵⁰ Includes Program O&M Costs of \$9.1M, Margin on Program Costs of \$0.8M, Common Costs of \$0.5M, and \$2.1M of Lost Revenues.

⁵¹ Includes Program O&M Costs of \$2.3M, Margin on Program Costs of \$0.2M, Common Costs of \$0.1M, and \$1.4M of Lost Revenues.

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New Construction	Non-Residential	Energy Efficiency	Approved ⁵²	\$16.8M	\$15.1M	1/1/2021	A5 - C3A
Small Business Enhanced	Non-Residential	Energy Efficiency	Approved ⁵³	\$25.5M	\$20.3M	1/1/2021	A5 - C3A

⁵² Includes Program O&M Costs of \$13.1M, Margin on Program Costs of \$1.2M, Common Costs of \$.8M, and \$1.7M of Lost Revenues.
⁵³ Includes Program O&M Costs of \$17.6M, Margin on Program Costs of \$1.6M, Common Costs of \$1.0M, and \$5.2M of Lost Revenues.

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Rebate Review and Approval Process

- Program Terms and Conditions (T&Cs) for each Program clearly state eligibility requirements, Program guidelines and the documentation that must be submitted before a rebate is eligible to be issued. T&Cs are incorporated into each rebate application and require a customer signature or acknowledgement reflecting the acceptance and understanding of those T&Cs.
- Prior to a Program's launch, the Company's Implementation Contractor (IC), the Company's EM&V Vendor and the Company determine data and eligibility requirements for the Company's Technical Validations, Daily Activity Files (DAFs), and Rebate Funding Requests. Those data requirements are then used to develop the required information on rebate application forms and data filters that are used to flag potential issues of concern.
- All rebate applications are reviewed for missing information or documentation by the IC. Applications requiring an initial assessment or reservations are verified against IC's initial assessment / reservation records. Customers and/or contractors are contacted to supply any missing information prior to entry of the application into the IC's tracking and processing system. For programs using a contractor network, each new participating contractor must have its first five (5) projects field inspected by our IC before it can become a participating vendor/contractor. Afterwards, 5% of all projects by all contractors are randomly selected for quality field inspections. Those quality inspections of the jobsite provide additional data verification by our IC's Quality Assurance Team.
- DAFs for complete projects are passed to Dominion Energy's Business Intelligence Datamart (BI) from the IC. When the DAFs are transferred to the BI, records must pass technical validation via Program-specific data filters to ensure that data is in the proper format, that all required data is present and that the data falls within the allowable range, as agreed prior to the Program's launch.
- Upon receipt of a rebate funding request, the request is matched to the associated DAF in the BI and technical validations are run for the funding request. The validation compares the Company's Billing system, DAFs, and previously submitted rebate requests for the subject premises.
- The responsible Program manager and analyst for each Program receive an account funding report containing all submitted rebate requests weekly. All rebate requests failing any validation are automatically rejected and flagged for Program Manager/Program Analyst attention. All rebate funding requests are individually reviewed by the Program Manager/Analyst and any rejections must be manually over-ridden to fund the rebate. Rebate requests that are rejected by the Company are noted in a report sent to the IC to either notify the customer of the rejection or to remedy the problem for resubmission in a later rebate funding request.

- All approved requests are funded in accordance with the Program guidelines and the funding is electronically transmitted to the Company's IC for payment. Following receipt of the funding, IC only issues payment of the rebates to the customer of record (in the Company's billing system) or the customer's contractor, if the customer designates payment directly to the contractor during the rebate application process, except in the instance where a customer gets an instant rebate and it is applied at the time of purchase, such as in the Residential Efficient Products Marketplace and Residential Smart Thermostats Programs.
- The Company's EM&V vendor receives a monthly download from Dominion Energy's BI of all paid rebates by Program. This data is used to calculate Program savings, but also is used for Program follow-up with regard to customer satisfaction, determination of realization rates and assessment of free ridership. In the course of these activities, any inconsistencies associated with previously paid rebates are reported to the Company for follow-up, offering additional assurance that proper controls are in place.

2021055

Operational Procedures

Procedure:	Initial Assessment Process Overview		
Version:	2.0	Created:	10/24/19
		Last Updated:	Spring 2020
Audience	Program Coordinators, Field Reps, Data Entry Reps		
Steps		Instructions	
Research Past Participation		Assess whether customer participated in same measure previously [note: this is allowed for some programs]. Search by account # and service address.	
Account Verification		1. Create work order – key items, upload images, determine expected rebate amount (reserved \$\$) 2. Check account eligibility: Rate code Opt Out Masterfile account exceptions kW Usage & number of eligible locations (SBI Program only) 3. Cancel this work order AFTER initial assessment completed. Cancellation reason = account verification.	
Pre-Inspection		Determine if measure requires Program Coordinator sign off and/or on-site pre-inspection, based on program-level requirements	
Notification		Notify sender of initial assessment docs whether approved or denied. Email notification preferred (documentation). Customers/contractors are given 180 days to complete the installation.	
Document system		Add interaction note referencing initial assessment decision (approved, denied, pre-inspection pending) Honeywell's Command Central rebate tracking system stores data from initial assessments, making documentation in the system an automated process.	
Process Rebate Application		After installs completed, upon receipt of rebate application cross reference the application with the initial assessment in the system and create a rebate work order linked to the initial assessment. The work order undergoes the standard steps in the rebate process toward completion which consists of rebate approval by Dominion Energy and payment of the rebate incentive.	